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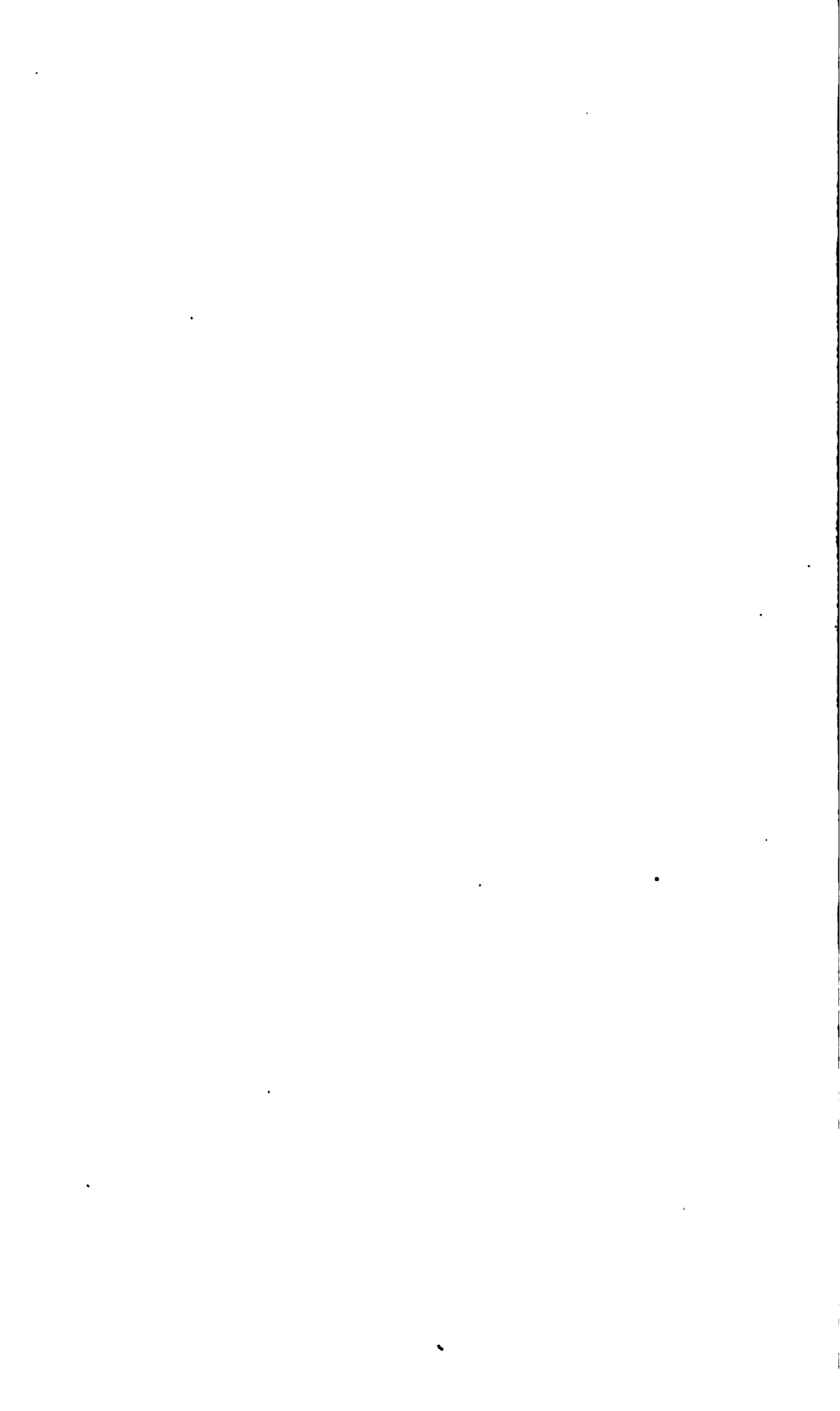
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ASTOR, LENOX AND
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Regents Bulletin

No. 60

PROCEEDINGS

OF THE

16th Annual Convention of the Association

OF

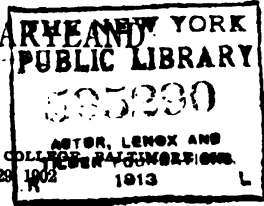
COLLEGES AND PREPARATORY SCHOOLS

OF THE

MIDDLE STATES AND MARITIME STATES

1902

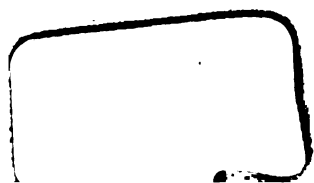
HELD AT JOHNS HOPKINS UNIVERSITY AND WOMAN'S COLLEGE, BALTIMORE, MD.
FRIDAY AND SATURDAY, NOV. 28-29, 1902



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ALBANY

UNIVERSITY OF THE STATE OF NEW YORK



Nov 7

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again, and will have a session here, adjourning, finally, about noon. That is the program in brief.

You are now in the main assembly hall of the Johns Hopkins University. The University is not celebrated for its architecture or beautiful buildings, or anything else that is pleasing to the eye, but, if you can find time, and I hope you will be able to do so, to look around the university buildings, you will find that, in spite of the plainness of the structures, they contain all that is necessary or desirable for work. If you can visit the libraries and laboratories, you will find things of interest to you; things which will give you some idea of the way we are working here. In spite of all the doleful tales in regard to the financial condition of the Johns Hopkins University, the work has been carried on without interruption, and we have everything necessary for carrying on this work — apparatus and books. We have been obliged to struggle for some time against adversity, and have been hoping that something might turn up. Something has turned up. Important gifts came to us last year, and these have put us all in a cheerful mood. You come at an opportune time. In order to visit our libraries and laboratories, you will not have to do much walking. All our buildings are within a very small compass, except the buildings of the medical school, which are some distance away. All the others are within a stone's throw of one another.

When you next come to Baltimore, I hope we may be able to receive you in our new home, which has the attractive and suggestive name "Homewood." Since the developments of last year I may exclaim, "We are but pilgrims here," Homewood "is our home!" I often walk out to our new home, and have great pleasure in thinking of the time when we shall be able to move. When I say that I hope we may see you in this new home when next you meet here, I do not mean to suggest that you are not to come again soon. The implication is that we shall be in this home before many years have past. There I hope it may be my privilege to receive you, and I can assure you that the surroundings will be much more attractive than they are here. We shall specially be free from cobblestones and trolley cars.

Ladies and gentlemen, it is not expected of me that I shall take much of your time this morning. As I have already said, the

buildings and rooms are all open for your inspection. I welcome you again to the city of Baltimore and as guests of the Johns Hopkins University, and I venture to express the hope that your deliberations may be as profitable on this occasion as they have been in the past.

Response

BY HEAD MASTER WILSON FARRAND, NEWARK ACADEMY

President Remsen, Ladies and Gentlemen: As I rise to respond to the graceful and hospitable welcome of President Remsen, I am reminded of the clergyman who, when asked to say grace, was accustomed to cast an inventorial eye over the board and to vary his grace according to what he saw in prospect. We probably all agree that this is an occasion for bringing out our best grace.

Those of us who attended the previous meeting of this association in Baltimore do not need to have their anticipations whetted; and even with those who have never been here before the reputation of southern hospitality and of Baltimore gastronomy are sufficient to let them know what is in store for them. The wisdom of this association's imperialistic action in forcibly annexing Maryland to the Middle States is amply justified, if for no other reason, by the fact that it gives us an opportunity every few years to meet in Baltimore.

But while the social side of our meetings is prominent, and while a large part of the value of the association comes from the opportunity it affords for personal intercourse, we have a more serious purpose, and it is an inspiration to meet in this university which during its brief life has won for itself such a high place and has exerted so profound an influence on higher education in this country. When, in addition to this, we consider the sister institution which joins Johns Hopkins in hospitality, and the other educational institutions of this city, and when we consider the men who have done so much to further the work in which this association is engaged — I need mention no other names in this connection, President Remsen, than those of your distinguished predecessor and his worthy successor — when, I say, we consider all of these, we feel that, as was said in olden times, "it is well for us to be here."

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to college

We thank you, sir, for your cordial welcome; we shall endeavor to show our appreciation of your hospitality in a more practical manner during these two days; and we trust that, when we have departed, Johns Hopkins University, the Woman's College, and the city of Baltimore will have no occasion to regret this northern invasion of Maryland.

SHOULD ADMISSION TO COLLEGES BE BY EXAMINATION OR BY CERTIFICATE?

EDUCATIONAL VALUE OF EXAMINATIONS AS THE CULMINATION OF THE PREPARATORY COURSE

BY DEAN JAMES E. RUSSELL, TEACHERS COLLEGE, NEW YORK

Examinations are presumably means to an end, not an end in themselves. In everyday life the wise man looks before he leaps; he considers the ground before he chooses the path he will follow; he tests the goods before he makes his purchase; he tries his acquaintances before he makes his friends. The extent and thoroughness of the examination in everyday life, depend, however, on supply and demand. When I must have something to eat and the visible supply is sadly deficient, the examination of what is put before me is conducted with little appeal to sense or reason, or perhaps omitted altogether. When I go a fishing, my experience is that the examination of my catch is appreciative rather than critical, and, I must confess, oftentimes contrary to good judgment, if not actually at variance with legal requirements.

There can be no doubt of the educational value of examinations, to those who conduct the examinations. Our daily experience shows conclusively enough that success in life depends largely on the critical acumen which precedes and influences judgment. Perhaps this is one reason (it is hardly becoming in me to make the suggestion) why colleges cling so tenaciously to the privilege of examining candidates for admission.

But, seriously, it is good for a boy occasionally to have to pass formal examinations. He may some day want to be a civil servant — a policeman, a street-sweeper, or a teacher (this is not intended to be an anticlimax), and then he will be required to come to terms with a list of questions and an examining board. Moreover, he will have frequent use in life for the ability to con-

ceal his own ignorance. And when we consider, in the words of Richard Baxter, "how very little it is that we know in comparison to that we are ignorant of," it will be seen that the ability to veneer this vast body of ignorance with a respectable coating of usable information is an accomplishment not lightly to be regarded. It might also be mentioned in this appreciation of the educational value of examinations (for those who are examined), that there is nothing more likely to take the conceit out of a fellow than a try at a paper set by persons whom he doesn't know in a subject which he thinks he does know. As a modern philosopher has remarked, "a reasonable amount of fleas is good for a dog — they keep him f'm broodin' on bein' a dog."

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The topic assigned me, as I understand it, excludes the consideration of examinations given in the course of instruction for the purpose of making that instruction more efficient. Such tests as written recitations, quizzes, term and final examinations and the like are of the greatest value to the teacher who is really concerned in educating his pupils. These examinations are indispensable; they need no argument to justify the position they hold in our scheme of instruction. But examinations conducted by outside authorities are in another category. They, too, may have a place and be valuable, but the justification must come from some other source.

From the standpoint of the pupil, examinations conducted by persons outside the school are far and away more harmful than helpful. I grant that they do tend to keep lazy boys up to the scratch, to show the conceited how little they know, to train the nervous and scatter-brained to hold themselves in and do something on time — in short, they do help a boy to pull himself together and concentrate himself on a task which requires all his strength and ingenuity. But what is it all worth in comparison with the attendant evils? The tendency to substitute for high ideals in scholarship a mere caricature of learning, to put forward a mechanical process as the *summum bonum* of the school course, to replace clear thinking by guesswork, to regard the examiner as a person to be satisfied at any cost, honestly, if possible, dishonestly, if necessary. Any scheme that puts a premium on success at a particular time or under peculiar conditions,

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strains the moral fiber. It is certainly good for moral fiber to withstand a strain; but, when for sake of reward or fear of failure, the strain becomes unendurable, the result is altogether bad. The recent experience of an eastern preparatory school is by no means exceptional, save in the extent of the fault and the publicity given to it. The relation between candidate and examiner does not promote high moral standards; witness the need of proctors and the unwillingness of boys, even college students, to assume the moral responsibility of taking examinations without watchers. The overseers of a New England college (Tufts) have recently published the following criticism of prevailing student customs:

It is well understood that the student body in most colleges has always sanctioned a highly artificial code of morals which thoughtful men would repudiate at once in the domain of business or of society. This peculiar code, which tolerates cheating in examinations, justifies the destruction of private property in the celebration of athletic victories, encourages boorish manners, and various forms of reprehensible conduct and causes strained relations between professors and students, was perhaps a natural outgrowth of the inflexible curriculum and the paternal form of college government which prevailed until comparatively recent years.

The situation is a relic of that educational barbarism which assumed no honesty in the scholar and no sympathy in the master.

On this point, therefore, let there be no misunderstanding: To the boy who is examined by outside authorities for the sake of personal gain, there can be no benefit worth mentioning which can not be secured equally well in some less reprehensible way, but, on the contrary, the process tends to lower our intellectual and moral standards, a fact which, through long familiarity, we have come to minimize or entirely to disregard.

But, as I have said, there is a place for examinations, and in that place they have a distinct value. Outside examinations are imperative whenever the secondary schools are unable or unwilling to assume the responsibility of meeting the requirements for admission to colleges and universities. If good work is to be done in our colleges and professional schools, a suitable foundation must be laid in the field of secondary education. If the

secondary schools will not or can not assure the strength of that foundation, then it is imperative that the higher institutions impose their own tests. Weak schools, of course, may be left out of consideration. But why, it may be asked, should any secondary school refuse to certify to the strength of its candidates, if it is capable of doing so? Several reasons at once suggest themselves: lack of knowledge of what the higher education really demands, modesty in proclaiming one's own belief, unwillingness to be tacitly responsible for work over which one has no control, inability to withstand the importunity of ambitious parents, adherence to collegiate customs, and so on through a long catalogue. We have all heard them many times and in many forms, varying from the modest excuse to the utterly imbecile apology.

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So trivial do some of the reasons seem and so out of harmony with the character of the men who put them forth that I have concluded to look deeper for the true cause of the apparent unwillingness of certain secondary schoolmasters to stand sponsor for their scholars. When the principal of a large high school tells me that he has more important work to do than to satisfy the crotchets of some college professor, I can see an obvious reason for his position; but, when the master of a school avowedly preparatory to college and well assured of the patronage, tells me that he prefers outside judgment as to who of his pupils shall go to college, I am at a loss to understand his meaning without appeal to first principles.

The great public schools of England — Eton, Harrow, Rugby and the rest — have long been ideal fitting schools. Their ideal is, I need hardly say, out and out English; it is not French; it is not German; it is not American, but it is a type which finds sympathy and support everywhere.

An Englishman, high in the councils of the government, has recently said:¹

We have never made an idol of intellectual instruction imparted in day schools. In other words, our great educators have upheld the belief (though we are far from having lived up to all that the belief implies) that a school ought to be something higher than a knowledge factory; that what a man *is* matters a great

¹ Dr Sadler. Special Reports, 9: 9.

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deal more than what he *knows*; that wise actions involve many vital elements besides intellectual attainments; and that education, in the true sense of the word, is an atmosphere and a discipline affecting heart and mind and body, and neglecting none of the three.

Again he says:²

We are in the habit of liking our national life to be so arranged as to allow as much freedom as possible for every gifted individual to express himself according to his inborn faculty. This means that we prefer untidy freedom to an immaculately neat system of restraints. We resent the idea of pressing boys or girls to learn a great deal at school. We believe in the value of a good deal of well employed idleness during early years.

In other words, the master has much more to do in school than to give instruction, and for the boy there is a larger and more important life than the life of the classroom. Kipling portrays that life most admirably in *The Brushwood Boy*:

Ten years at an English school do not encourage dreaming. Georgie won his growth and chest measurement, and a few other things which did not appear in the bills, under a system of cricket, football and paper chases, from four to five days a week, which provided for three lawful cuts of a ground ash if any boy absented himself from these entertainments . . . At last he blossomed into full glory as head of the school, ex officio captain of the games, head of his house, where he and his lieutenants preserved discipline and decency among 70 boys from 12 to 17; general arbiter in the quarrels which spring up among the touchy sixth — and intimate friend and ally of the head himself. . . Above all, he was responsible for that thing called the tone of the school, and few realize with what passionate devotion a certain type of boy throws himself into this work. Home was a far away country, full of ponies and fishing and shooting, and men visitors who interfered with one's plans; but school was the real world where things of vital importance happened, and crises arose that must be dealt with promptly and quietly . . . and Georgie was glad to be back in authority when the holidays ended. Behind him, but not too near, was the wise and temperate head, now suggesting the wisdom of the serpent, now counseling the mildness of the dove; leading him on to see, more by half hints than by any direct word, how boys and men are all of a piece, and how he who can handle the one will assuredly in time control the other.

¹ Dr Sadler. Special Reports, 9:501.

For the rest, the school was not encouraged to dwell on its emotions, but rather to keep in hard condition, to avoid false quantities, and to enter the army direct, without the help of the expensive London crammer, under whose roof young blood learns too much. Cotter, *Major*, went the way of hundreds before him. The head gave him six months' final polish, taught him what kind of answers best please a certain kind of examiners, and handed him over to the properly constituted authorities, who passed him into Sandhurst. He did not know that he bore with him from school and college a character worth much fine gold, but was pleased to find his mess so kindly. He had plenty of money of his own; his training had set the public school mask upon his face, and had taught him how many were the "things no fellow can do." By virtue of the same training he kept his pores open and his mouth shut.

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This little sketch of Kipling's is, I believe, the best portrait of the English public school in existence. He puts duty, common sense, character, in the foreground, as the great ends to be desired in education. Hence, his *Praise of Famous Men*:

And we all praise famous men—
 Ancients of the college:
 For they taught us common sense—
 Tried to teach us common sense,
 Which is more than knowledge.
 This we learned from famous men,
 Knowing not its uses
 When they showed in daily work
 Man must finish off his work—
 Right or wrong his daily work—
 And without excuses.
 This we learned from famous men
 Teaching in our borders,
 Who declared it was the best,
 Safest, easiest and the best,—
 Expeditious, wise and best,—
 To obey your orders.
 This we learned from famous men,
 Knowing not we learned it,
 Only, as the years went by—
 Lonely, as the years went by—
 Far from help as the years went by,
 Plainer we discerned it.
 Wherefore praise we famous men
 From whose bays we borrow—
 They that put aside Today—
 All the joys of their Today—
 And with toil of their Today—
 Bought for us Tomorrow.

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Such an ideal of education as this demands, indeed, famous men as teachers. They are men who can not be harnessed to a system or hampered by restraints. The master is the school, and because masters differ, the schools will not conform to an accepted norm. A few succeed; others overreach themselves and are lamentable failures. Under such a system intellectual attainment ranks as one aim among many, and it is conceivable that it may not always be the most important one. Strength of character, honesty, integrity, physical prowess, the ability to lead one's fellows, can not be relegated to second rank in any system of education. Moreover, the intimacy between master and scholar in a good home school—an intimacy which, in the course of years, ripens into an affection that is akin to parental love—makes it extremely difficult for the teacher to judge the boy from one standpoint only. He knows him too well; his faults and his virtues are spread before him in an open book. To single out one attainment on which to predict the future is to neglect others which will surely tell as time goes on. How can the master, under such conditions, be a righteous judge? So it happens that, in such a system of education, examinations conducted by higher authorities come easily and naturally to be the culmination of the school course.

Say what we will about the English school system, we Americans do believe in the best ideals of English education. There is something in *Tom Brown's School Days* which thrills us as schoolmasters even more than when we were schoolboys. We are ready to say, and we generally mean it, that what a man *is* is of far more consequence than what he *knows*. We believe that the making of men is the chief end of school work, and we are not unwilling to borrow methods from those who seem to be successful in making a certain type of Englishman.

But notwithstanding our admiration for some things in English education, we can not accept all that the system implies: class distinctions; "boarding schools for those who are to be leaders in church and state, day schools of an inferior sort for the masses"; separation of the sexes whenever possible; interference of a state church; low ideals of scholarship. Some of these we

regard as not so much a fault of English education as of English life, but bad teaching is certainly the work of poor teachers. Admission
to college

It has been remarked that, in judging a teacher, the German asks, What does he know? the American, What can he do? the Englishman, Is he a good fellow? Dr Sadler, whose office in England corresponds to that of Dr Harris in this country, says on this point:¹

No schoolmasters in the world lavish more time and thought and strength on the care of their pupils than the English secondary schoolmasters. On what may be called the pastoral side of this office, they are beyond rivalry. . . . But, because the English secondary schoolmaster so often lives among his pupils from morning to night, he has far less time and strength to spare for professional studies than has his continental counterpart. He is much more the friend of his pupils, and much fresher in his sympathies with the interests of young people. But he is far less of a student; as a rule, is much less learned; and is often a hardened amateur in his methods of teaching. . . . Clumsy, antiquated methods of instruction are far too common in our secondary schools.

For the remedy, he points his countrymen to Germany and extols German scholarship and German thoroughness. He says:

The Germans have succeeded in getting a much larger proportion of their people to go through an advanced course of instruction than is the case in England. . . . They have managed to inculcate scientific habits of mind and a disposition towards intellectual organization and cooperation to a degree quite unparalleled here. . . . They have skilfully applied education as an instrument in furthering their commercial and industrial interests. . . . We shall find ourselves virtually compelled by their action to replace much of our old educational machinery by something which works more economically and turns out a more modern fabric. . . .²The strength of German education lies in its great tradition of disinterested devotion to knowledge, in the self-sacrificing labours of the teachers . . . and in the infinite capacity for taking pains, which (whether innate or the result of a long tradition of educational discipline) is characteristic of so many German minds.³

"The German schools," he points out, "could never have become what they are today, had it not been for the high intellectual

¹ Special Reports, 9: 10-11.

² " 9: 35.

³ " 9: 71.

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qualifications of the teachers, and for the care taken to weed out those who are lacking in professional aptitude for the work of teaching." It is for an intellectual tradition, as persistent and congenial as the ethical tradition which characterizes the best English education, that Dr Sadler pleads:¹

The development of individual intelligence is largely a question of methods of teaching, but also of choice of studies. Educational efficiency of the best kind depends on having small classes, highly trained teachers, skilful methods of teaching, not too many subjects, the right order of subjects, the right choice of subjects, and the avoidance of hurry, of excessive competition and of intellectual overstrain. . . . The keen study of methods by teachers is one of the best signs of educational progress. But the aim should be, not to enable the pupil to win a prize or a scholarship by a certain time, or to pass in some competitive examination (though I am far from meaning to imply that all competition is bad, or that all examinations could be dispensed with), but to start him in the right way of learning things for himself, to arouse his interest in important subjects, and to give him a sure foundation of accurate and well directed knowledge. Large numbers of our secondary schools are worried by a superfluity of examinations. It would be far better to have some well defined intellectual aim for each school, and to allow the teachers to work steadily and quietly towards that aim.

I have quoted thus at length from a high English authority, to show how conscious some Englishmen are of the great defects in English education. His verdict is, in a word, (1) low ideals of scholarship and (2) bad teaching. Both lead naturally and inevitably to the curse of examinations, systemized and conducted by authority of the state or university.

Little wonder that the Englishman, in seeking for light, should turn to Germany. German education is strong precisely where English education is weak. The one system lacks just what the other can give. All the world knows what German universities stand for: investigation, research, pure scholarship. But the German secondary school is the foundation on which the German university stands. It has its own intellectual traditions and points to a long line of scholarly schoolmasters, the finest classroom teachers in the world. Here are blended the scholarly at-

¹ Special Reports, 9: 163, 164.

tainments and skill in teaching which the Englishman and the American must admire and ought to covet. No lecturing or hearing recitations in a German school; the teacher is there to instruct. And instruction means to the pupil the acquisition of useful information — knowledge systemized and directed toward some end which is itself worthy of attainment. Hence the German teacher points out the way; the pupil follows his instructions confidently, knowing that there is no better way. The work in class day by day is not guesswork; there is no dawdling over lessons out of school, no juggling with problems in mathematics or thumbing of lexicons to make sense out of a foreign language exercise. The teacher has a purpose, and that purpose is to see to it that his pupils learn what for the time being is most important for them to know.

With teachers who know what to teach and how and when to teach it, there is no need for formal examinations to decide the matter of promotion or graduation. At the end of each year, the class teachers, in a German secondary school, determine who in their opinion are qualified to do the work of the next higher class, and at the end of the course, candidates for the university are passed on or held back by verdict of the teachers of the highest class. There is a final examination, to be sure, conducted under the supervision of a state official; but the questions are set by the teachers of the candidates on the work of the preceding year, and the results are weighed and estimated by these same teachers. But so nicely is part adjusted to part in this great system that there is likely to be no greater variation in the attainments of boys coming up to the universities from different schools, than of those coming from any particular school.

Say what we will of the German school system — of its inflexibility, its subserviency to state control, its military character — we Americans do admire its adherence to high ideals of scholarship, its appreciation of the teacher's profession and its success in methods of teaching. We recognize that it is a piece of finely adjusted machinery, and that in the attainment of German aims, better means could hardly be devised. We have shown our appreciation in enduring forms; Andrew D. White says that, intel-

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lectually, Germany is the second mother of the United States:¹ "More than any other country, Germany has made the universities and technical high schools of America what they now are — a powerful force in the development of American civilization." It is German influence, too, working in the realm of higher education, which has propounded to the secondary schools some of the most vexing questions of the past decade.

We Americans are, as Kipling puts it, "mixed peoples with all the vices of men and boys combined." But along with the vices go virtues, which our schoolmasters must steadily keep to the front. We may be ethically English, intellectually German, but we are naturally — if accidentally — American. We believe in the doctrine of equal opportunity for all men, and for every boy and girl who can use it, we believe in an educational ladder reaching from the kindergarten to the university. That ideal at least is not English and it is certainly not German. We believe in helping each pupil to make the most of his opportunities and to become that which he wishes to be, providing his aim is not too obviously harmful to his fellows. We set up no barriers, social or otherwise, to hamper his progress, and we never regard his career as ended till he is safely under ground. There is no "culmination" in American life short of death itself. Our school system, therefore, if it is to fit for American life, can have no bounds. We have no right to speak of the "culmination" of a school course, unless we mean thereby in college parlance a "commencement." And least of all should we think of examinations as the culmination of anything educational.

Let us reason together about this thing, this relic of educational barbarism. It comes to us with the English stamp not yet effaced; it bespeaks a tradition of poor scholarship and bad teaching. It is enforced by institutions which are more than half "made in Germany," but which are complacent enough to suppose that German scholarship can be erected on a secondary education, the sole guaranty of which is an examination for college entrance, or in lieu thereof, as was once remarked in a meeting of this association, "the good looks of the candidate." Is it not

¹ London Times, Dec. 1, 1900, quoted in *Special Reports*, 9:37.

more reasonable to suppose that, when we succeed in evolving an American system of education — really American, I mean, not a mere cross or hybrid — it will be a unity? a system necessarily made up of constituent parts, but so nicely adjusted that part will work with part in organic unison? When that time comes, I venture to predict we shall hear nothing of examination for admission to any grade or to any school, but much will be said of examinations for instruction and promotion. The elementary school will pass on its pupils into the secondary school, and the secondary school will admit them to college, if that be their proper aim. Or, more properly speaking, scholars who are let out of one grade or school will admit themselves to the grade or school next higher. Already we hear it said that graduates of any good four year high school course should find a college course open to them. I accept the statement and should be glad to add to it these words, "without examination by college authorities."

But before these words can be added, the American public must see to it that the high school course is really good, and that the teachers, in point of character, scholarship and professional ability, are really worthy of the positions they occupy and of the hire which they ought to have. In the meantime, it is our duty to be righteously discontent with our present schemes of state inspection, Regents examinations, college entrance boards and the like, knowing them all to be dispensations of Providence, calculated to keep us humble and fit us for a more blessed state. The millennium is not yet in sight, but the advance made in recent years in the matter of uniform entrance requirements, and specially in the establishment of the College Entrance Board is most gratifying. But, while we are waiting, let us be honest enough to confess that all these examination schemes are devices, as some say, to impress on a doubting world the great importance of certain indispensable institutions of higher learning, or the acknowledgment, as others declare, of the shortcomings of American secondary schools and the incapacity of American secondary schoolmasters.

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METHODS IN USE OF ACCREDITING SCHOOLS

BY PROFESSOR A. S. WHITNEY, UNIVERSITY OF MICHIGAN

[Read by the secretary]

The time allotted for consideration of this subject necessarily limits me to a brief presentation of its main essentials. It has been deemed best, therefore, to confine the scope of this paper to a concise exposition of the origin and progress of the accrediting system, the present methods of accrediting schools, the methods of certifying students, and the general evaluation of the system as conceived and executed primarily by the University of Michigan, supplementing it with reports of methods in use in other institutions whenever sufficient differentiation obtains to cause any material modifications of the plans evolved. I shall make no attempt to set the merits or the demerits of the accrediting system over against those of the examination system as operating within the territory covered by this association. To do so would be to transcend the bounds circumscribed by the topic assigned me.

The accrediting system had its origin at the University of Michigan in a resolution adopted by the faculty in 1871 and confirmed by the Board of Regents in 1872 — 30 years ago. It sprang from two apparently antagonistic causes: first, from an earnest desire on the part of the president and members of the faculty to cooperate with superintendents and principals of high schools with a view to consolidating, strengthening and elevating the entire system of the state; and secondly, from urgent solicitations of superintendents and principals of the leading high schools of the state for closer articulation with the university as an organic part of the educational system, to the end that each institution might react on and stimulate the other for the benefit of each and the good of the whole.

In the early beginnings of the accrediting system a committee of the faculty, on special invitation of superintendents and boards of education, annually visited the high schools and examined their courses of study, methods of instruction, scholarship of teachers and pupils, library and laboratory facilities, and prevailing intellectual and moral conditions. In addition, schedules

of test questions, previously prepared for use of visiting committees, were assigned the various classes, and their written answers submitted as confirmatory evidence of the character of the work accomplished. These findings were reported to the faculty, and on their character was determined the future relationship between each individual high school and the university. Admission to college

As time advanced and the number of schools seeking accredited relationship multiplied, this system was found burdensome and impracticable. The professors were too engrossed with their legitimate university duties to give sufficient time properly to conduct this work. In consequence, the formal test examination fell into disuse, and the term of affiliated relationship was gradually extended to two or three years according to the excellence of the school, the university always reserving the right to reexamine whenever, in its judgment, changed conditions might seem to warrant.

This system prevailed till three years ago, when stress of numbers, inadaptability of certain members of the faculty to the work of inspection, and a desire for greater uniformity of standards and methods necessitated a change. Following the example of several of her sister institutions, the University of Michigan appointed a special official to take sole charge of inspection and to report his findings to a so called diploma school committee composed of heads of departments with the president of the university as chairman. This plan of inspection now obtains, in some form or other, in connection with all the great universities of the Northwest except the universities of Minnesota and Indiana. The smaller institutions generally accept the standards set by the great universities of their respective states.

The University of Minnesota, as stated, has no special high school inspector as such, but it attains practically the same ends through the State High School Board, an organization created by the Legislature and endowed with certain specific powers and duties. This board appoints the state high school inspector, determines the methods of examination and standards of scholarship, and approves or disapproves the work of each individual high school according to the findings reported. If these findings are satisfactory, the high school is given a bonus of \$400 from

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the state treasury as an aid and stimulus to further endeavor and is placed on the accredited list. Students graduating from such approved schools are, if properly recommended, admitted without examination into all the higher institutions of the state, including the state university. That the standards set for the high schools are of a high order is attested by the fact that the president of the state university is ex officio chairman of the State High School Board.

In Indiana the methods of procedure are widely divergent from those already described. In that state the inspecting and accrediting function is performed solely by the State Board of Education, the different members of the board apportioning the work among themselves. Graduates from the high schools thus accredited, or "commissioned," are admitted without examination, when properly recommended, into the state university and all the other higher institutions of the state.

As stated above, therefore, the field work in connection with the great universities of the North Central states, with the exceptions named, is conducted at the present time by special inspectors. And, though representing different institutions, so systematic has the work become that the inspectors follow the same general methods of procedure, apply the same general principles of analysis, and seek the same general ends. Their methods differ somewhat in minor details, but not in essentials. The routine is practically as follows:

The inspector visits the schools without previous notification. He learns the population of the city, the total enrolment of the schools, the enrolment in the high school, and the number of teachers employed, both in the grades and in the high school. He acquaints himself with the teachers of the high school, inquires concerning their academic and professional preparation, the subjects they teach and the number and average length of their daily class periods. He visits the classrooms, analyzes the work of the teachers, and endeavors to determine the efficiency of each by noting his aim and plan of lesson, his mastery of the subject, his skill in adapting the lesson to the needs and capacities of his pupils, his ability to analyze and classify difficulties,

his power to attract and hold attention, his skill in the art of questioning, his assignment of the lesson; he also notes the manner in which the pupils have attacked the lesson, their habits of thought and study, and the general spirit and progress of the class. He examines the course of study, the textbooks used, the library and laboratory facilities; he takes note of the plan of organization, the character and methods of discipline, and the intellectual and moral tone of the school; and he ascertains the average size of the graduating classes, the number of graduates attending higher institutions of learning, the number now preparing for such institutions, and the general attitude of the board of education, the patron, and the community toward the school and toward educational affairs generally. Finally, he examines the structure, capacity, heating, lighting and ventilating of school buildings.

All these facts and more are recorded by the inspector and reported back to the proper committee, or to the faculty, as a basis for determining what relationship should exist between the high school and the university. In case, however, it is a high school seeking a renewal of accredited relationship, this report is supplemented by official records showing the ability, or inability, of the students representing this high school to pursue university work with profit. If all the conditions essential to a school of high grade, as indicated by the inspector's report and by the scholarship of the students of this school attending the university, are present, the high school is formally approved and placed on the accredited list; if these conditions are wanting, the school is rejected, and the reasons therefor are specifically given to the proper authorities. It should be remarked in this connection, however, that some universities, notably Chicago and Illinois, follow the plan of accrediting by subjects, approving some and disapproving others; while the Universities of Michigan, Wisconsin and Iowa regard the high school as a unit, and accept it or reject it as such.

As to methods of certificating students to university authorities, there is much confusion and misunderstanding, specially among those unacquainted with the workings of the accrediting system. It is generally assumed that the possession of a diploma

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from an approved high school opens wide the doors of the university to all who may choose to enter. Such is far from the exact truth. At least four conditions must be fulfilled before an applicant can receive recognition at the hands of the university.

1 The applicant must have received his preparatory training in an accredited high school.

2 The applicant must be a graduate of an accredited high school. The university sets the stamp of its disapproval on non-high school graduates and will give them no recognition whatever. Only the finished high school product receives consideration.

3 The applicant must present a regulation certificate, furnished by the university and properly filled and signed by the superintendent or principal of high school; this certificate states that he has completed all the work required for entrance to the university and specifies the branches pursued, number of weeks and of recitations a week devoted to each, textbooks used, and the teachers' estimates of his scholarship in the several branches.

4 The applicant must furnish a recommendation from the superintendent, high school principal or faculty attesting belief in his ability to pursue university work with pleasure and profit to himself and credit to the university. The aim of this provision is manifestly to throw the responsibility for his success back on the high school, where it properly belongs. The school knows, on the one hand, all about the student, his powers, capabilities and impulses, and, on the other, all about the requirements of the university, and should, therefore, be able to judge accurately whether he is of university material.

It should be observed that after the first semiannual examination of the freshman year, the records of scholarship attained by the students thus recommended are reported back to their respective high schools, and the credit, or discredit, after making all due allowances for changed conditions, is charged accordingly. So deeply is this responsibility felt by high school authorities that they are wont to exaggerate on the side of conservatism. This is not only the testimony of superintendents and principals themselves, but it is demonstrated by the fact that every year

numbers of students who have been refused recommendations by the accredited schools present themselves and enter the university by way of the examination door. This requirement has led not a few high school authorities to grade the diplomas granted to the graduating classes as "A" and "B," the former entitling the holder to certificates of admission to the university, and the latter withholding such privilege. Admission to college

Having now briefly indicated the origin and early development of the accrediting system, the methods of accrediting schools, and the methods of certificating students to university authorities, there remains to ask what is the effect of this system on the university, on the high schools, and on the educational system of the state as a whole. From the standpoint of the University of Michigan, two features are worthy of consideration: first, the effect of the system on scholarship, and secondly, its effect on attendance.

As to scholarship, little better can be done than to summarize a report made by a committee of the faculty appointed to investigate the standings of students admitted on certificate as compared with those admitted on examination for the first nine years of the existence of the accrediting system. This committee made a careful study of the examination records of all the members of the freshmen classes for the period named and tabulated the results in such manner as to show separately the standings of those admitted on certificate and those admitted on examination, a study involving more than 1000 students and more than 10,000 examinations. The committee refrained from examining the records subsequent to the freshman year, in the belief that one year in the university ought to obliterate the main distinctions arising from differences in preparatory schools. From the tables thus framed and classified the committee computed the percentages of scholarship from each class by dividing the number of examinations successfully passed by the number that, by order of the faculty, ought to have been passed. The following are the results obtained:

Total number of students admitted on certificate.....	470
The percentage of scholarship.....	88.91
The total number of students admitted on examination..	574
The percentage of scholarship.....	87.22

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It will be observed that the committee found a slight balance in favor of admission by certificate, showing that the university was the gainer, rather than the loser, by the change. Unfortunately no systematic investigations have been made since that time. It is our firm belief, however, that a like investigation today would not result to the disadvantage of the certificated student.

As to the effect of the certificate system on the attendance at the university, there is not the slightest doubt in the minds of any conversant with its workings that it greatly increases it. This is the unanimous verdict of high school and university authorities, of the students themselves, and of high school inspectors. It follows as a natural consequence from shortening and smoothing the pathway leading from the high school to the university and from bringing them into closer union and sympathy with each other. Two illustrations from many: A little more than a year ago the inspector responded to an invitation to examine the high school in the town of A. He was informed by the superintendent that there was no one preparing to enter higher institutions, and no sentiment for such preparation, but that he desired affiliated relationship with the university for the purpose of creating and arousing such an interest. The school was examined and accredited in the usual way. This very act seemed to arouse such ambitions and to open the door to such undreamed possibilities, that three students entered the university in the fall and others went elsewhere.

Somewhat less than a year ago the high school in the town of B was reexamined and rejected after having been on our accredited list for many years. Six students who were preparing to enter the university on certificate, were thus deprived of the privilege and could now enter only on examinations. Of these six one came and was successful; the other five sought institutions of lower grade. The school has now been reorganized and has made application for reexamination.

But it is from the standpoint of the high schools that the crowning virtue of the accrediting system is most marked, a fact wholly unrecognized and unappreciated by the great major-

ity of those unacquainted with the practical workings of the system. It has been deemed best, therefore, to point out definitely and specifically wherein the accrediting system reflects on and exalts the high schools, even at the cost of overlapping and repetition.

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1 Its influence on standards. Before a school can be accredited, it must offer all the branches required at the university for admission; it must pursue them for certain periods of time, the minimum of which is specified; it must give suitable opportunities for library and laboratory work; and it must attain a certain fixed degree of thoroughness, vitality and spirit of scholarship. The inspector comes, backed by all the authority and influence of a great university, examines these standards according to his definitely fixed ideals, and reports back to the proper authorities. On this report hangs in a large measure the reputation, the influence, and the prestige of the school, and therefore a favorable outcome is highly prized. Inspectors are frequently requested by superintendents to examine their schools unofficially for the sole purpose of aiding them in marking and bettering their standards.

2 Its influence on the teaching force. After the inspector has examined a high school, as heretofore outlined, comes the conference. Here he explains to the superintendent or principal the conditions as he sees them, commending the good and pointing out the bad. He explains the theories of the university, changes in requirements for admission, and plans in operation in the best high schools, and he suggests ways and means for correcting deficiencies and laying solid foundations for scholarship. He advises also concerning the organization, the methods of discipline, the courses of study, library and laboratory facilities, textbooks and supplies. The inspector listens, in turn, to a statement of their difficulties, fears, hopes and ambitions, and aids to the best of his ability in their proper solution. He meets the teachers, if need be, and gives them opportunity to ask for his criticisms, suggestions and help, an opportunity of which they freely avail themselves. If the standards of the school are only moderately satisfactory or are too low to warrant establish-

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ment of accredited relationship, it is placed on the "nursing list" and reexamined the following year. If conducted frankly and sympathetically, the conference hour can be made productive of immeasurable benefit.

3 Its influence on pupils. - The influence of the accrediting system on pupils has already been indicated. There needs to be added, however, that the opening of the university door to all properly accredited students is not the only potent influence at work among them. The repeated visits of the university inspector are of scarcely less importance. They arouse among the pupils of the average high school a spirit of inquiry concerning colleges and universities; they set them to thinking and to talking about going to college; they intensify their desires and stimulate their ambitions to make the trial. The very fact that a great educational institution will send an official to them adds dignity, importance and seriousness of purpose to the work of the school and to the work of life. The pupils often ask questions concerning the university, the expenses of living, the opportunities for self-help, the methods of securing rooms and of registering. These the inspector answers individually, in groups, or in a short address before the school, offering suggestions, encouragement, help.

4 Its influence on the board of education and the communities. The boards of education and the communities always desire the highest possible efficiency of their schools, and they have come to measure this efficiency by the recognition the schools receive at the hands of the university. They therefore cordially invite the university inspector, earnestly seek his opinions and advice, and give serious consideration to all his recommendations. Indeed, so thoroughly have they come to rely on the university to mark the efficiency of their schools that I do not exaggerate when I say that there are few places in Michigan where a superintendent or high school principal can long maintain his position if accredited relationship, once established with the university, is repudiated on reexamination.

As to the effects of the accrediting system on the educational system of the state as a whole, I quote from the annual report

of President Angell to the Board of Regents, after an experiment of 10 years. He says: Admission
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This innovation on old customs, like all innovations, and chiefly because it was an innovation, was met at once with severe criticism and especially by some distinguished educators in the older colleges; fearing, as was alleged, that such a system would bring down the standards of colleges. Experience however has proved that there was no ground for fear, except that the thing was new, and not practised in the mother colleges. Two facts are to be noted among the results: (1) the standard of preparation in the high schools, if affected at all, has been elevated rather than lowered; (2) the state system of education has become a reality. It is obvious that there can be no system, properly so called, without an actual and a living connection and communication among its members. By calling for the visiting or examining committee of the faculty, the high schools have been brought into that vital connection with the university which makes them parts of a natural organism and, so far as concerns our schools, our state system no longer exists merely on paper.

No one can look into the condition of these schools without feeling satisfied that this connection has had the effect both to animate their students to more earnest effort, and to encourage and strengthen the teachers; while it has brought about a more perfect unity of plan and method in the schools of the state in general. In short, it gives to our schools, otherwise isolated, a bond of union and a center of life. We are convinced, as the result of an experiment of 10 years, that this cooperative plan, especially if entered into by the few remaining schools, and thus perfected, will give a character of consistency, solidity, strength and efficiency to the educational work of the state, which will leave nothing further to be desired but the uninterrupted operation and movement of the system.

At that time there were 16 schools on the accredited list; today the number has swelled to 250. In a recent interview President Angell, in the light of the 20 years that have passed since that report was written, emphatically confirms the position there taken. He realizes that the accrediting system has its limitations, the same as the examination or any other system; but that, taken as a whole, it is freest from objections, is the most productive, and the most logical of all systems yet devised.

One criticism presents itself. The admission of properly accredited students to the university without examination tends

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to belittle examinations as an educational factor. This, however, is incidental rather than essential, and the university is gradually awakening to the necessity of setting the stamp of its disapproval on it.

In conclusion, permit me to say that the colleges and universities of a territory covered by the North Central Association of Colleges and Secondary Schools, are perfecting a plan looking toward a general recognition of the best high schools in the several states. When this plan is completed and put in execution, it will not be unlike this association in the breadth and uniformity of the work attempted.

EFFECT OF COLLEGE ENTRANCE EXAMINATIONS ON THE SECONDARY SCHOOLS

Miss Jane L. Brownell—In spite of the argument of Dean Russell and the experience of Professor Whitney, I am obliged, because of my convictions, to take the other side of the question and to speak in favor of entrance to college by examination.

Dean Russell grants that, for the college, examinations are at present the best method of admitting students. I hold that for the schools also they are the best method.

I assume for the purposes of discussion the average good school, whether public high school or private day or boarding school, that prepares intelligently, under existing conditions, for entrance to college; also, the normal boy or girl, strong and healthy in body and mind. I take for granted also the college entrance examinations as they are now given, whether by the Uniform Entrance Examination Board or by individual colleges. However much the present examination papers may be capable of improvement, they are, on the whole, fair and reasonable tests of the work of the secondary schools.

Granted these premises, what is the effect of college entrance examinations on the secondary schools; and, if I may be allowed the corollary, is it possible to prepare students for college and an entrance examination and also, in the best sense of the word, to educate them? My contention is that, with a rational preparation, the effect of college entrance examinations on the secondary schools is good, and that, not only is it possible to prepare for

college and also to educate the student, but that the student that is really well educated ought to be and will be the student that is best prepared for college. Admission
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Now I do not deny that examinations have their faults: that in some instances either the papers do little more than test the student's knowledge of facts or reflect some professor's pet theory; that the physical condition of the student often affects the quality of his answers, and that therefore a student may not be fairly tested by one day's work; that the dread of the examination sometimes injures a student's chance of passing; and that some, perhaps many, schools and teachers yield to the temptation of overworking their students in their anxious desire to fit them for the examinations. Only one of these, however—the occasional poor or unreasonable paper—is the fault of the college, and that can easily be remedied. Another, the physical condition of the student at the time of examination, must always remain a factor in the result. Temporary illness, however, will scarcely cause the failure of a well prepared student, though it may lower his grade. In all my experience, which has been almost entirely in girls schools, I have never known a student actually unable to take the examinations, or have I known one that has failed to enter college because of illness at the time of examinations. The other faults which perhaps are most often charged against the examination system are unnecessary and may, I believe, be entirely done away with if teachers, parents and students are sane and sensible.

Now the advantages to the secondary schools of college entrance examinations seem to me these: (1) the stimulus which the knowledge that the work of the school is to be tested by an outside authority gives to both students and teachers, specially to the latter, and, as a consequence, (2) the improvement in the quality of the preparation. I know of nothing that so holds a teacher up to his greatest effort as the certainty that his work is to be judged inevitably and inexorably by the results of the college entrance examinations. In the present day of sight translations and original demonstrations, the wise teacher teaches his students not to

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"cram," but to think; not to memorize, but to reason. The student that is so trained, finding that he can think and reason, gains confidence in his own powers, does not fear the unexpected, and, in fact, is interested and stimulated by the thought of wrestling with fresh problems set by others than his own teachers. This I know, by practical experience, to be true of some students. I believe that it might be true of many, if teachers did not get panic-stricken at times and, as it were, lose their good judgment, press their students hard toward the end of the course, and make them feel that everything depends on their learning a few more facts before the examination day, instead of making them feel that a clear head and the ability to use whatever brains they may have is the one thing necessary.

The statement that teachers need the stimulus of the college entrance examination is no reflection on the conscientiousness or the good intention of any teachers that are preparing students for admission to college by certificate. It is simply a recognition of the fact that it is inherent in human nature to work best under pressure; the pressure may be competition, or it may be, as in this case, an outside test, but it must be something.

Some may say that admission by certificate demands the same reviews and gives the same incentive to teachers. This, from the nature of the case, can not be true. The teacher, however impartial, must then judge of his work solely from his own point of view, from what *he thinks* the college wishes. He does not really *know* the college standard. From the very nature of secondary schools, the teacher's work year after year consists in a repetition of elementary principles; moreover, he parts with his students before they have made more than a mere beginning of knowledge; and unfortunately he himself seldom has time for advanced study of his own subject. How can he help but tend to lose his standard? It would be difficult to keep it even if he had obtained the degree of Ph. D., as have the teachers in the German secondary schools; but in this country, where the majority of teachers in the secondary schools have only the B. A. degree, and where many have not even that, it is practically impossible for the schools to keep the college standards. (3)

Under an examination requirement for entrance, the college actually sets the standard for the schools. The examination papers are a definite and clear means of communication between the college and the school. Few of us who have been studying them have failed to read their meaning. (4) Furthermore, the college entrance examination relieves the schools of an unenviable responsibility. The pressure to give a certificate to a student who for good reasons perhaps may not be fully prepared for college, must often be very great—specially on the private schools. Moreover, there must often be times when, with no pressure except that of the teacher's personal interest in a student, his knowledge of the circumstances of the student's life and his belief that college life is the one thing that will develop what is best in the student, it is very difficult to make an impartial decision. For my part, I should prefer to be relieved of the responsibility, and would beg the college to decide which students it will take. Admission
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The moral effects of examinations on the pupil are of great importance. The boy or girl who has been trained, as I hope to prove that he can be, not to fear an examination, who, though he realizes that he has an important and difficult task before him, does not flinch, has learned lessons of self-control and courage that are more than worth the price paid.

The physical effects of examination are perhaps negative rather than positive. In other words, entrance examinations do not harm the average student in ordinarily good health. Moreover, they need not harm any student, provided he is properly prepared, without undue pressure or strain.

It is a great mistake to put so exaggerated an importance on college entrance examinations. They are very simple tests. Why can not they be looked on by teachers and parents, and consequently by students, as the fitting end of a preparatory course? The colleges do not wish to exclude all students from entering their doors—only those that are not well prepared or that have not the intellectual ability to do college work. All entrance papers then can undoubtedly be passed by even the student of ordinary intelligence that has been well prepared, or by the

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student of extraordinary intelligence that has not been well prepared. Others should not present themselves for admission to college, or, if they do, should take their failures philosophically and not cry out against examinations.

And now, if preparation for college need not prevent a good education, how may it be obtained? Only schools that give more than a mere preparation for the college examination, that is, that have their students with them for a comparatively long term of years, have the opportunity to try to accomplish both tasks. These include, however, any day school, public or private, and many boarding schools; that is, almost all the schools that prepare for college. They can have in the lower grades a wide and liberal course of educative work — work that trains both eye and hand. They should have plenty of color, drawing, manual training, and English, consecutive courses in history and elementary science and much French, less mathematics than is customary, and, later on, the ordinary amount of Latin, Greek or German. Thus they will give to their boys and girls a broad elementary education as well as preparation for college. For the last four years frequent short written lessons should be given, written in the proper form for future examination papers. During the last two years there should be thorough reviews, on which, however, no more time should be spent than on the preparation of a daily lesson, and short examinations, lasting not longer than an hour. Such a system of frequent written lessons and short examinations will make the student perfectly familiar with the act of taking examinations and will rid them of all their terrors. Most teachers know that mere strangeness is often the cause of fright. It may seem advisable to give for practice an occasional long examination, but not more than one of these should be allowed in each examination subject, and they should not be given later than the midyear. Everything possible should be done to lighten the pressure of work at the end of the year, to encourage the students and to give them confidence. Often a holiday of a day or two immediately before the first examination improves the physical condition.

Such then, very briefly sketched, is a rational preparation. I know by experience that it is both practicable and successful.

I hope that I have succeeded in proving both that it is possible ^{Admission to college} to prepare for college and an entrance examination, and at the same time to give the student a real education through a breadth of training in the lower grades; and also that the sequence of training implied is possible for almost all schools.

I hope too that I have proved that the injurious effects of examinations are not inherent in the system, but that they are due to an irrational preparation, and that therefore the evil effects are the fault of the schools and not of the examinations.

Dr Julius Sachs—The last speaker on a question so fully treated can hardly expect to make a startling contribution to the subject. He may perhaps discuss present conditions in the light of the future, i. e. from the standpoint of the ideal. What might be the effect of college entrance examinations on the secondary schools may serve to mark the contrast to "what is."

Your committee is wise; they have not asked about "Effect of Examination on Secondary *System* of Instruction." There could have been but one answer; it is ruinous. As long as college examinations are what they are, the uncertain, changeable device that wants one thing and states another, that makes its formulation conform now to one current of educational thought, now to another, they are antagonistic to the elaboration of a system of instruction. A system grows within itself, step by step; it does not sacrifice its logical development to fortuitous criticism exercised on a handful merely of those who have worked under it, specially since such criticism hinges on most unfavorable methods, employed at unfavorable times under unfavorable conditions. On secondary schools you do exert an influence; let us see whether it is wise. Your examinations profess to test the pupils, but you are constantly passing on the schools; as your scheme now operates, the schools have no alternative but to accept this inferential criticism; they must submit their pupils to your test; they know they are judged by your opinion, condemned by your opinion, and yet they can not evolve from your own statements a definite view of what you really want. Do you propose to apply the test, how the four years of secondary schooling have been spent? That calls for one kind of exami-

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nation; or are you anxious to establish a pupil's capacity, his power to do freshman work? That calls for an entirely different examination; and each one of the two examinations involves radically different processes of preparation, the one, endless reviews which are educationally of little value and deadening to the intellect; the other would permit steady, rational advance, each new step in advance fortifying the one previously attained. Yes, you do exert an effect on the secondary schools, one of constant unrest, constant dissatisfaction; we know that you can not gain at examinations the results you aim to secure; you are not able to make allowance for the exigencies of temperament and novelty of situation, and you put the stamp of your approval on those we should not approve, you find weak those whom we know to be strong. But your method forces us to repeat, each in his smaller sphere, during the whole course, the system of unwholesome excitement incidental to the examination scheme. If I am correctly informed, many college officers think that secondary men and schools need these warnings, this pressure. Perhaps so; certainly some of the entrance examinations remind one forcibly of punitive expeditions, undertaken periodically to curb rebellious hordes. If you state that you know of no other method to test the secondary schools satisfactorily than your entrance examination of the individual pupils, we shall have to ask you to take into consideration at least, the laws of human nature, and to remember that even your college students, two and three years older, are not forced during examination week to take three and four subjects a day; and again, that you can not expect an adolescent boy or girl to compass in two or two and a half hours a task that an expert specialist can hardly complete in the same time. These are not idle words; we of the Middle States have, it is true, escaped from the Babel of examinations of the individual colleges that reflected eccentricities quite as frequently as convictions; but we have found out one thing, that insight into the nature and possibilities of a secondary pupil is the rarest thing in a college professor; perhaps we have no right to demand it. Many were never interested in these things; others have lost the standard for measuring them; the result is the same.

We have made an immense gain by our examination board; we can at least lay these facts before the examiners; we find it hard to convince at times, but we can put our fingers on the difficulty. They are at present thinking less of the beautiful examination papers that they have been wont to draw up; these papers are things of beauty in their scientific arrangement, their comprehensiveness; but of what avail all this beauty, if they ask the student to compass the impossible? From frequent recent contact with examining boards, I am free to say: nowhere are men more generous in intention, and yet how difficult in each concrete instance to convince them of the limitations of youth, with which we have become so completely familiar. We are far from an approach, even, to an ideal test; that would come only after college professors had frequently, and always with a very definite object, visited the schools. In the end they will know how to arrange a test, and will also know what kind of test will really prove the capacity of the pupils; but meanwhile they will probably have found it unnecessary, for by that time, somewhere this side of the millennium, they will have discovered that there can be another and better method to test the secondary schools and help them in the advancement of a secondary education. They may at some distant day gain the conviction that, where there is a corps of really good teachers and a good administrative head, there good work is done; and that such a school in its aim to maintain its high standing will not recommend inferior pupils to the college; they will also have detected poor teaching, inefficient teachers, and will recognize that from such surroundings no good material is likely to come to the colleges. They may arrive at the conclusion that the system of the accredited school, if thoroughly good and rigidly applied, would be a lasting boon to the whole of our educational system; that it would act as a spur to first-class teachers and first-class schools to establish a record and to maintain it year after year under constant inspection; that it would vastly increase the dignity of the secondary teaching profession — a highly accredited teacher would become a recognized factor in the community; an accredited school could not afford to deteriorate — it would maintain at all hazards a staff of com-

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petent teachers, or seek even to improve them. The first-class teacher and the first-class school should seek each other and be models for the growing ambitions of other schools. By the 21st century it might become clear from a careful study of the accredited school system, as practised in California, that it involves no organic difficulty that can not be overcome. True, there one university sets the pace, and all the schools must meet the demands of its examiners. But a council of the colleges and universities might create a body of inspectors, men of high educational ability, whose sole business it would be to inspect schools and school methods, secure annually lists of the teaching staff of each school that wishes to be accredited, inspect the schools at any time they chose and as often as they chose, ascertain the methods of discipline, of classroom work, the laboratory facilities and the mode of handling them, commend and criticize, but above all, ascertain whether the school's work warrants the acceptance of its judgment on the matter of entrance. A good school, a strong school in the eyes of the college authorities, these latter day professors will probably say, will also be strong enough to assert its standards, to refuse its approval of incompetent students. They will pronounce crude the examination of individuals; the proper inspection of institutions will appear to them a dignified procedure that every good school will welcome, and only weak schools will dread. Such a system of accredited schools would establish standards that every one would strive to reach, that no one could afford to forfeit, after the standard had been attained; each community would jealously watch over the maintenance of the privilege by its own schools, and would investigate closely the cause of any lapse. The standards of the teaching profession would be advanced in every respect. Our college friends will reach the bold conclusion that, when men's teaching is adjudged satisfactory, their judgment on the capacities of their pupils may also be considered acceptable; that, even if a good school were for a moment weak in its final decision on the qualifications of its students, the later record at college would bring out the fact and would endanger the continuance of the accrediting privilege.

From the beautiful possibilities of such a state of things in the 21st century I am rudely awakened; objections countless assail me: a busy body of professors can not add to their many duties those of school inspection and supervision, can not afford to be withdrawn from their legitimate work; other methods of inspection are open to criticism of various kinds. Most strenuous is the objection from the financial side. I shall be told that the expense of such a system, if properly carried out, would be prohibitive; and yet President Wheeler of California pronounces no single item of expense at his university a more remunerative outlay than the thousands he spends on inspection. What, then, is to hinder at some future day, I mean a hundred years hence, the 10 most prominent universities of the Atlantic seaboard from arranging jointly a board of inspection that shall act in perpetuity and designate by their united authority and with the glad acclaim of all friends of secondary education the accredited schools of their section of the country? That would be the ideal outcome of the present system of college entrance examinations.

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DISCUSSION

Prof. Lightner Witmer — The question, that has been so clearly and eloquently placed before us for discussion, appears to be: "Is it better for the colleges to examine and accredit preparatory schools or to examine and accredit individual applicants for admission?"

This question is capable of answer only on the basis of the results of the working out of the methods now in use of accrediting schools and of examining individual applicants. If the methods in use of accrediting schools have given practical satisfaction to the schools and the colleges, there would seem to be no question of the greater desirability of the colleges examining groups of applicants through the inspection of accredited schools in the stead of the traditional examining of the applicants individually.

Those of us, however, who have followed the papers that have just been presented, discover that both the schools and the colleges differ widely in opinion as to the relative merits of the two systems. My personal experience has not been such as to enable me to contribute facts that would materially assist in arriving

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at a proper conclusion as to the practical working of the system under discussion. I can only regret that my contribution today will necessarily be restricted to certain considerations as to the general value of examinations.

There is perhaps some reason for a few remarks on the general question of examination, as Professor Russell who contributed the opening paper, has gone for a solution of the question to fundamental principles and we hear in his and in other papers of arguments for and against examinations, and specially against examinations conducted by persons other than the instructors.

We hear, also, of the unendurable strain placed on the morals and physical health of the examinee and that the examination provokes unnecessary and injurious mental cramming in preparation.

There are no results that I am aware of, that show that an examination is too great a strain on the physical health of those who are at the time fit to stand a reasonable strain on their physical constitutions. An educational system should operate like life in general to eliminate the physically as well as the mentally unfit. The excessiveness of the moral strain is largely a matter of opinion. Naturally it is impossible for us to obtain statistics. I believe that boys and girls in the examination room exhibit as much candor and honesty as they do outside, and very much more than they will exhibit in the real struggle for existence when they attain to adult age. If an examination tests only the memory and not the real capacity of those examined, it is because the examiner has not learned properly to frame his questions.

It may be that a college is Mark Hopkins seated under a tree discoursing to a student. Probably we know what Mark Hopkins is, but we want chiefly to know what the student is getting from his association with Mark Hopkins. Does he for example get any more than the tree under which they both sit? How can we ascertain what the student is and does, or satisfactorily measure his capacities with those of others, except from what we learn about him as the result of a competitive examination? I think it must depend somewhat on the talent of the individual

instructor, and also to some extent on the subject taught, how formal the examination shall be made, and whether the examination is best conducted by the instructor or one outside. Personally I object very strongly to examinations and have resorted to many devices to avoid the toil and expenditure of time necessary for the framing of questions and the examining of answers, but I am compelled from experience to place an ever increasing reliance on the examination, owing to its value to the average student.

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In some subjects taught for admission to college, the examination may readily be dispensed with; for example, in the classics and mathematics. The classics are generally very much better taught than say, the modern languages and history. In the classics, we have fixed standards of requirement for each successive year. These standards have been developed under a system of examination. No one fails to understand what has thus been determined on as the standard requirement, through centuries of pedagogic adjustment, and dares to fall short of the standard. But we have no fixed standards in the modern languages and history. If a standard could be fixed and all schools could be made to adhere to it as they now do in the classics and mathematics, it would be very easy to do away with the entrance examination and admit a student on certificate, but when neither the colleges nor the preparatory schools know what they desire in history it would seem difficult to accredit schools on the basis of a general inspection.

In psychology, we have, also, no fixed standards at present of either college or graduate work. No one knows what psychology is, neither the public nor those who are giving instruction in this branch. I would very gladly submit my college and graduate students to an examination set by a competent number of say from three to six experts, whose function it should be, in making the test to which my students and others would submit, to determine and gradually raise the standards of requirement. I am sure this would help my work as an instructor at the University of Pennsylvania, and might render some not unnecessary service in forming ideals and stiffening requirements, even at other institutions.

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Pres. Joseph Swain — I wish to say only a word. It has been my fortune to be on the State Board of Education in Indiana for nine years, where the question of the method of entrance to college was a very important one. Personally I believe strongly in the certificate plan. I am not familiar enough with the schools in the states of this association to say however that the examination can be entirely discarded. I assume that here as elsewhere it is better to retain in part the examination system for those students coming from schools whose general standard is not known to be sufficient to be granted the certificate privilege.

The nine years' experience on the State Board of Indiana led me to believe that the secondary school should determine whether the student is prepared for college. After having visited a very large number of high schools, I see no more reason why the college professor should be the judge of the work in the high school than the teacher in the ninth grade should be the judge of the work in the eighth grade. The teacher of the eighth grade is the one to say whether the student is ready to go from the eighth to the ninth grade, and so it should be up the list till the student enters college.

The college must in some way determine the standard for entrance to college; and, when it has determined that much, it must by some suitable method determine what schools are prepared to fulfil this standard. The responsibility should then be placed on the secondary school. This privilege can be taken away from the secondary school, if its students fall below the standard set.

I am pleased to have presented here today the Michigan certificate plan. This plan or some modification of it has become almost universal in the colleges and universities of the West and Northwest, where it has been very satisfactory. I am glad to know that there is so much sentiment in this association for some such plan, and I feel certain that with the years we shall grow more and more in this direction.

Dr James M. Green — I think Dr Witmer in error if he understands the basis of this discussion to be on the merits of examinations as such. Examinations have a valuable place in class-

room work, and may there be conducted with benefit both to pupil and teacher as class exercises to test the retentive and résumé powers of the pupil. Admission
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The question under consideration here is the relative value of an examination as a means of testing a student's fitness to enter college. It is in this office that the examination is inadequate.

A clergyman friend of mine preached one of his most eloquent sermons in which he illustrated by anecdote. After he reached his home, his little son asked him if what he had said in the pulpit was true. "What do you mean, my boy?" said he. "Do you suppose I would tell anything that was not true?" "Oh, I did not know but what you were just preaching," said the little son.

Are we entirely frank with ourselves and the evidence that comes to us or are we endeavoring to sustain pet theories?

Dr Witmer has referred to the examination as the only means of testing the student's capacity. Capacity is the very thing the examination does not test; it simply tests the power of memory.

Probably the best all-round student graduated from the New Jersey State Model School this year failed in his college entrance examinations, while weaker classmates passed. He simply met with the accidents of misfortune in the questions. Were I a college president with a thousand such students, I should think educational interests safe. He was a strong debater, a ready thinker, and had a good grasp of all the subjects of his course and was well prepared to carry the college work. Unfortunate in the particular questions of the examination and embarrassed, he failed to pass, and, there being no redress through supplementary information, he was obliged to spend another year in a preparatory school.

It is easy to say that, if pupils are well prepared, they are not disturbed by a college entrance examination, but the fact is that they are, for the reason that so much depends on it.

Miss Brownell herself in her paper favoring college entrance examinations has given us the best of evidence on this point. She acknowledges beginning definite training for the ordeal of examination two years before the pupil is to enter college.

How much better it would be to have the pupil spend his time in extending his scope in learning to include such essential

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branches as drawing, physical training, music etc., studies required of the public secondary school by the people, rather than in this mimic drill.

When pupils are to go up to the college entrance tests, they become nervous and their teachers become nervous. If the pupil should fail in the entrance examination, his ambition would be thwarted, and the school would get the reputation of being inefficient, hence the matter becomes one of frequent reference and constant concern, and the pupils are often brought into a state of mind that makes failure probable.

I myself have been connected for 12 years with a system of admitting students into a normal school on certificates from approved high schools, and it is my testimony that we find far less abuse from this system than from the examinations. There is no disposition on the part of teachers to abuse it, as the reputation of their schools depends on the success of their students after entering the normal. Furthermore, the normal is protected, as it can drop incompetent students. The same thing would doubtless be true with colleges.

Our educational system should be built on trust rather than suspicion. We hear much of "trusts" in other things; why should not we profit by this spirit? If students who have satisfactorily completed long courses in the secondary schools have their certificates honored, the secondary school men, nearly all of whom are college graduates, will in turn do all in their power to sustain the colleges by sending them well prepared students, and will find their schools freed from a great deal of unnecessary nervousness and occasional injustice.

If there are small, weak schools that wish to shield themselves from parental pressure by the college entrance examination, they might be permitted to do so.

Prof. Louis Bevier jr — I shall take but a minute of your time, as the hour set for the close of this discussion is at hand. I want to cite two facts which have come under my observation, to illustrate the effect of the college entrance examinations on the classroom work of the preparatory school, and on the individual student who faces them.

It has been my good fortune to be personally acquainted with one of the best teachers of preparatory Greek in this country. His name is well known, and is a guaranty both of scholarship and of teaching ability. Yet even he can not escape from the influence of the college examinations which his pupils are to meet. He can not teach as he would with a free hand. He must teach with a view to the college entrance tests. His boys enter the largest institutions of the East, particularly Yale and Harvard, and they are remarkably successful in passing without conditions. His reputation is involved in seeing that they shall so pass. Admission
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Now, in Greek it is usual for the student to take his preliminaries one year and his finals the next. Generally, the Homer examination only is left for the last year, and this is largely concerned with the translation of the text of the *Iliad*, particularly of passages for "sight reading." A teacher would be either more or less than human if under these circumstances he did not teach in such a way as to meet the requirements. Accordingly the year's work consists in the rapid reading of the *Iliad* (and perhaps the Polyphemus story from the *Odyssey*), first the first three books, and then such passages from the later books as experience has shown are likely to be chosen for "sight reading." "You will take 60 lines here." "The next passage you may omit," "This book we will omit entirely except the last 100 lines," etc. The boys are coached on all the popular and favorite passages of the examiner, and are likely to "read at sight" most acceptably at the critical moment, unless by a divine mischance the passages chosen for "sight reading" really demand to be read at sight. The result is apt to be a boy who is a good guesser, and has a general facility in passing examinations, but whose knowledge of Greek is weaker indeed than it was at the end of the preceding year.

My second fact is an incident that occurred at the last September examinations in the institution which I represent. It presents vividly the mental attitude of the examinee and needs no amplification. A student was taking the English paper, on which one of the questions was: "Write four sentences illus-

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"I *am trying* the examination in English.

If I *answer* 10 questions, I shall pass.

I *may pass*, if I answer eight.

God help me!"

Dr Henry L. Taylor — [Question to Dean Russell] How do students admitted to Teachers College on certificate compare in classroom ability with students admitted to Columbia College on examination?

Dr Russell — I don't know that I can answer that question. There are so few pupils that enter the Teachers College on certificate that we have abolished the plan entirely, and are now wholly depending on the reports of entrance examination. To be sure, it is possible that some certificates have been accepted, but, where they were accepted, it was on a year's conditions; therefore, I have no way of knowing whether they are any better or not.

Dr Taylor — The presentation of the theme from Dean Russell's standpoint seems most accurate, clear and convincing. It was fitting that a representative from the University of Michigan should present the method of accrediting so extensively developed throughout the West through the influence of that university, but both wings are essential to sustain the flight of this fledgling. Examinations and accrediting are better than either alone, but, while the examinations of students and the accrediting of schools are factors in determining the ability of students to enter on advanced work, both have their limitations and their dangers. Moreover, the attention of this organization should be called to the fact that it is solving but one of the problems; namely, admission to colleges of liberal arts and science. A more extensive work is demanded in determining the relations to other superior institutions, e. g. for admission to medical schools or other professional and technical institutions.

Dr Sachs has enumerated the next important step in this development so clearly shown in New York's educational history.

There must be inspection of schools to determine their facilities and equipment. There must be contact with the student and teachers to examine intelligently. The limit of time precludes the discussion of the fourth essential. registration.

Report of
College
Entrance
Examina-
tion Board

Friday afternoon, November 28

President Farrand — The executive committee has made some slight change from the regular program, and has decided to receive two reports before proceeding with the regular business of the convention; one is the report of the secretary of the College Entrance Examination Board, for 1902, and the other is the report of the committee of this association on college entrance requirements in English.

It seems desirable to have these reports made at this stage of the proceedings, so as to relieve the pressure sometimes incident to the business meeting which follows immediately after the last session.

REPORT OF THE COLLEGE ENTRANCE EXAMINATION BOARD

BY PROF. THOMAS S. FISKE, COLUMBIA UNIVERSITY

The College Entrance Examination Board has to the Association of Colleges and Preparatory Schools of the Middle States and Maryland the relation of child to parent. As you all know, the board grew out of a discussion which took place three years ago at the Trenton meeting of the association. In recognition of the relation that the board bears to the association, there has been incorporated in the constitution of the board an article whereby it is the duty of the secretary at each meeting of the association to render a report on the operations of the board. It is not necessary or appropriate, however, for me at this time to make to you an extensive and detailed report. It will perhaps be sufficient for me to call your attention to the fact that the operations of the past year have been described in detail in the recently published *Second Annual Report* of the secretary. Copies of that report have been sent to almost all of you, and there is here in this hall for distribution among such of you as may desire them, a supply of additional copies.

It is perhaps a sufficient fulfilment of my duty to lay this report before the association and to present myself before you for the purpose of giving any information that may be desired, of answering any questions that may be put to me.

It appears to me, however, that I ought to bring to your attention one or two of the more remarkable points with respect to which the work of the board has progressed during the past year. The year has indeed been one of great progress. The whole number of candidates examined shows an increase of some 40% over the corresponding number of the preceding year. Considering only the number of candidates examined outside of the city of New York, the increase has been 100%. The number of institutions that have assumed an immediate responsibility for the work of the board has increased from 15 to 23. The very small number of institutions not accepting the results of the board's examinations has diminished and has become just one. The number of places at which examinations were held has increased from 69 to 130. The work of the board is rapidly assuming a national character. The membership of the board is no longer restricted to the Middle States and Maryland. It already includes three New England institutions—the Massachusetts Institute of Technology, Mount Holyoke College and Wellesley College, and one institution from the North Central states—the Case School of Applied Science. Many other institutions, specially in New England, have under consideration the question of applying for membership to the board.

In this connection again it is of interest to observe that the institutions which admit most of their students on certificate seem to be interested in the board's work equally with those which admit only on examination. This seems to me to be as it should be. A certificate system efficiently administered requires as an indispensable auxiliary an examination system. Candidates who come from schools the certificates of which are not accepted, candidates from accredited schools who are unable to obtain certificates, candidates prepared by private teachers, or whose preparation is in any way irregular, will always have to submit to examinations. I was greatly inter-

ested in the very important paper of Professor Whitney of the University of Michigan, which was presented at this morning's session. From this paper we learned that during a period of 10 years something like 1000 students were admitted to the collegiate department of that institution. Of this number a few under 500 were admitted on certificate and a few over 500 on examination. A careful examination of the records of the candidates shows that the scholarship of the candidates admitted on examination and the scholarship of the candidates admitted on certificate were, when expressed in percentages, almost exactly identical. This seems to me a very interesting result and it leads us to a number of important conclusions. First, I should say that it shows that by adopting a system of admission on certificate or a system of admission from accredited schools, a college or university is not enabled to dispense with examinations. Second, it shows that examinations efficiently administered afford a test of extraordinary reliability. We must remember that, in the case of the University of Michigan, almost all the best students from the best schools were admitted on certificate. To the examinations then was set the difficult task of determining which of the candidates not eligible for admission by certificate could safely be admitted. Apparently from this poorer lot of candidates the examinations made their selection so successfully that it was impossible to distinguish with respect to proficiency in their studies between those admitted on certificate and those admitted on examination. Under the circumstances that prevail in the West, this is an extraordinary tribute to the value of examinations; and I am strengthened in my belief that, whatever conditions prevail, whatever progress we make, a system of examinations properly administered will always be an indispensable instrument in the business of admitting students to college.

Report of
committee
on
entrance
require-
ments in
English

REPORT OF THE COMMITTEE ON COLLEGE ENTRANCE REQUIREMENTS IN ENGLISH

PRESENTED BY PROF. FRANCIS H. STODDARD, NEW YORK UNIVERSITY

The committee on entrance requirements in English would respectfully report that a meeting for the revision and continuation of the list of books recommended for study in preparation for entrance examinations in English was held in New York city May 10, 1902, in the chancellor's room, New York University, Washington square. Each of the constituent bodies of the preceding conferences was represented by a single delegate, as follows: from the Commission of Colleges in New England on Admission Examinations, Prof. C. T. Winchester; from the Association of Colleges and Preparatory Schools of the Middle States and Maryland, Prof. F. H. Stoddard; from the New England Association of Colleges and Preparatory Schools, Dr F. A. Hill; from the North Central Association of Teachers of English, Prof. F. N. Scott; from the Association of Colleges and Preparatory Schools of the Southern States, Prof. G. R. Carpenter, *vice* Prof. W. P. Trent.

The meeting organized by appointing Professor Stoddard as chairman and Professor Carpenter as secretary.

It was recommended:

That the books set for reading and practice, for the years 1906, 1907 and 1908, be the following: Shakspeare's *Merchant of Venice* and *Macbeth*; The "Sir Roger de Coverley Papers" in *The Spectator*; Irving's *Life of Goldsmith*; Coleridge's *The Ancient Mariner*; Scott's *Ivanhoe* and *The Lady of the Lake*; Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; Lowell's *The Vision of Sir Launfal*; George Eliot's *Silas Marner*.

That the books set for study and practice, for the years 1906, 1907 and 1908, be the following: Shakspeare's *Julius Caesar*; Milton's *Lycidas*, *Comus*, *L'Allegro* and *Il Penseroso*; Burke's *Speech on Conciliation with America*; Macaulay's *Essay on Addison*, and *Life of Johnson*.

It was, further, resolved:

That the attention of the constituent bodies be called to the fact that, during the year 1903-4, measures should be taken to insure concerted action with regard to uniform entrance requirements in English for 1909 and the years immediately following.

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Your committee recommend the adoption of the resolutions of this meeting. The committee also call attention to the second resolution and recommend that a committee be appointed to represent the association at the next conference of the several associations interested.

FRANCIS HOVEY STODDARD	} Committee
WILSON FARRAND	
FRANKLIN T. BAKER	

President Farrand — The first report requires no action on the part of this convention, as it is simply the annual report of the secretary of the College Entrance Examination Board; but the last report, being a report of the committee appointed by this association, requires some action taken on the part of the convention, either to accept the report or reject it. [The motion for the adoption of the report of the committee was duly seconded, and was unanimously accepted.]

The report also recommends that a committee be appointed to carry this work on in the future, which will require separate action. Is it the pleasure of this convention that such a committee be appointed? [It was unanimously agreed to.]

RELATIVE FUNCTIONS AND POWERS OF PRESIDENT, TRUSTEES AND FACULTY

THE PRESIDENT

PRES. IRA REMSEN, JOHNS HOPKINS UNIVERSITY

It is astonishing how innocent and harmless some subjects appear at a distance of six months, when little thought is given to them, because of the period of time to elapse; but no less astonishing is it how formidable they become as the interval of time grows shorter and shorter. I must confess that this subject seemed extremely innocent and harmless when it was first proposed to me, and, as I have considered it from

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time to time since then, the more I have come to believe that I know very little about it. It must be confessed, further, that a college president, who has been a president for only a few months more than a year, can not be very familiar with the relations of a president to trustees and faculty. My purpose is, nevertheless, to speak of the relations of the faculty and the trustees from the point of view of the president.

I came into the office of the president of this university only a little over a year ago, and I have not learned all. I am in the honeymoon period, if that is a proper expression. Last year we had a great celebration — what might be regarded as a “wedding feast.” We were all in good humor. The relations existing between the trustees and faculty at that time were all that could be desired; they were admirable; they were beautiful. If you wish to learn how the trustees and president and faculty of a university should get along, come down and see how we get along.

In thinking over this subject, it has seemed to me that it might be well to know what the relations between the president, trustees and faculty of this university are as stated in official language; so I picked up our register this morning to see if I could find what system we are working under. I came into this system and was elected president. I had nothing to do with working it out. I find that but few rules have been laid down. There has been very little legislation on the subject, but there has been one thing from the beginning. There has been a desire on the part of the president (I can speak about that) and on the part of the trustees, to work together and discuss things in a friendly way, and I have never heard anyone say, “That is not my business, I don’t think I will give that my attention.” It has been rather a friendly, cooperative system, and it has worked well. The first rule that was laid down is this: “The trustees are the ultimate source of authority in all matters pertaining to the university. They act collectively through the standing committee and through the president of the university.” That is simple enough. It is so simple that one can not discuss it. It says, “The trustees are the ultimate source of authority.” We might discuss that

subject to the end of time, but we could not get away from that fact, that "the trustees are the ultimate source of authority in all matters pertaining to the university."

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I am inclined to say a word here in regard to the way our trustees regarded their trust at the outset. A large sum of money was left for the purpose of founding and maintaining a university. What the trustees were charged to do was to use that money according to the wishes of the testator. The trustees, it seems to me, showed almost supreme wisdom in their action. I should say here that the members of the board at that time have almost all passed away—only two are left. The men who composed the board of trustees were men of high character who realized the sacredness of the trust. The first thing that these gentlemen did was to get the will and read it very carefully, so as to know what the testator wanted. After reading the will carefully, they found he wanted a university. That is what Johns Hopkins wanted. They first concluded very wisely that they didn't know what a university is. Instead of assuming that they knew all about it, they didn't assume anything at all. They made a tour of the most prominent colleges and universities of the country and consulted with the leaders in these colleges. After they got home, they had a meeting and called in some of the presidents who had made the strongest impressions on them. When they got all the facts before them in this practical way, they began to see what the problem was, and step by step, and very slowly, they made up their minds what they must do in order to build up a university. They were always impressed with the idea that they had to perform a most serious act of great importance. It is very likely that the course of events in Baltimore would have been entirely different from what we are so familiar with, had the trustees taken a commonplace view.

But I am to talk of the relations of the trustees and the faculty from the point of view of the president. I remarked to you a moment ago that "the trustees are the ultimate source of authority in all matters pertaining to the university." In whatever way we may look at the matter, that fact will remain,

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and there is no desire to escape from it. If the trustees are true to that trust, they will keep their eyes on everything that is going on, and they will help to work out each and every problem we may be called on to work out.

Before I take up the next point, I find under the head of "President" the following: "The duties of this office are thus defined by the trustees, Sep. 14, 1876." They began work under this rule a few days after that.

The president of the university is the authorized means of communication between the board and the various officers of instruction and administration employed in the university. It shall be his duty to consult with the professors, in respect to the development of their various departments, and the general interests of the university; to determine the appropriate duties of the associates and fellows; and to exercise such superintendence over the buildings, apparatus, books, and other property as will insure their protection and appropriate use. In respect to these matters and all others which concern the welfare of the university, he shall consult frequently with the executive committee, and he shall attend the meetings of the board of trustees. Purchases, alterations, repairs, and other incidental expenses must not be ordered by any of the officers of the university without his previous assent, or the expressed authority of the board.

That was written in 1876. It has never been annulled or changed. Up to 1892 the president of the university attended the meetings of the board, but was not a member.

"By resolution of the trustees, May 2, 1892, the president of the university was constituted a member *ex officio* of the board, and also *ex officio* a member of the executive committee."

This probably expresses the relations that exist between the president of the university and the trustees in words, so far as any one can express them in words. But there are things we can not express in words—at least without the use of poetry. When we get in trouble, and find that ordinary words fail us, we turn to poetry, and we interpret that as we please, but I am not a poet.

It would be impossible for the president of the university to perform his duty under this rule without being on good terms with the trustees. He is the connecting link—not the

missing link — between the board and the faculty; he is a part of both sides. He is a member of the board of trustees, and he is also a creature of the board; so in one sense he is a part of both, being a member of the board of trustees, and also a part of the faculty. I am not sufficiently well versed in metaphysics to discuss that subject.

I think the rules are entirely satisfactory. We talk over the problems that present themselves. We try to do the best we can for the university as trustees and president. It is through the president that the business of the university is brought before the trustees. It is through him that the business is filtered. He must inform himself, therefore, in regard to everything that is going on in the university. There is one point I should mention here, and that is one of importance. The majority of the members of the board of trustees of most colleges do not reside where the college is located, but come from different places throughout the country. In the case of this university every member of the board of trustees is a resident of Baltimore. We hold monthly meetings and go over everything requiring attention. Of course that makes a difference. The trustees, residing in Baltimore, can be called together at almost any time. The board is as well informed in regard to the work of the university as the different committees, or the president of the university. Then we have an executive committee that goes over every question before it is brought to the attention of the trustees. The president must study the problems; he must familiarize himself with all the details connected with the work of the college, and with the work of the university, so that he can be prepared when he meets the executive committee, to explain these matters. The meetings of the executive committee furnish an opportunity to talk over everything freely and in an informal way.

There is another point in regard to which a word may not be out of place. Though the president here is a member of the board of trustees, he is not the presiding officer of that board. That is not the case in a large number of the most prominent universities, as you no doubt know. At Harvard the president of the university is the president of the board

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of trustees, and president of all the committees, and I believe he is the presiding officer of everything else connected with the university over which there is a presiding officer. There are quite a number of universities in which the president of the university presides over the board of trustees and their committees. I will not go over the list. I think I shall not be censured if I quote what President Eliot of Harvard recently said to me on this subject. Referring to the fact that the president of Johns Hopkins University is not the president of the board of trustees, he said, "That is the fundamental defect of the Johns Hopkins University." He said most emphatically, "The president of the university should be the presiding officer of the board of trustees." I should not bring the matter forward here if I had any feeling on the subject. I do not feel that I could do any more for the university, if I were the presiding officer of the board of trustees, though the question raised is well worthy of consideration. As it is here, the president of the university can always go to the president of the board of trustees and talk over any matter in an informal way. That helps very much; and very frequently in that way a wiser conclusion can be reached than at the point of the bayonet. If an important question comes up that needs attention at once, the president can consult the executive committee; or, if it is possible to postpone action for two or three weeks, it gives time to consult the board of trustees.

You may say the chief duty of the trustees is to look after the finances of the institution. They can do that very much better than the faculty. Our board of trustees is composed of men from different walks of life. There are prominent business men and prominent lawyers, and others who are deeply interested in educational matters—men of experience—so that the members of the board of trustees are well equipped for their work. The trustees look after the finances, and furnish the money needed by the university, and the president and faculty spend the money. We must have means to carry on the work of the university. We depend very largely on our investments for our income, and the trustees are charged with

the duty of seeing that investments yield a sufficient income for the needs of the university.

So far as the appointment of members of the academic staff is concerned, that is a question of great importance that might be discussed, but I will not go into that in detail. I have no secrets. The appointments are made by the trustees. They must make the appointments. But how are they made? Do the trustees go out into the open and get the men without informing the president or the faculty, and bring them in and put them on the staff? Our trustees have never done so. Our trustees have never taken direct action in the selection of the members for appointment on the staff. The method has been for the president to consult with the members of the faculty, and, in accordance with the result of the consultations, recommendations are made for appointments on the academic staff. The appointments are then made by the trustees; no one is appointed by the board of trustees who is not nominated by the president with the approval of the academic staff.

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There are other things that might be said on this subject, but I will not detain you longer, as I have said enough. In conclusion, let me emphasize this. Unless there are cordial relations and a friendly feeling between the president and the faculty on the one side, and between the president and trustees on the other, the results can not be satisfactory. If there is a desire to do the best that can be done for the students, and sensible men come together to plan the work, it matters little what rules are laid down, provided they are not in conflict with common sense; the results are sure to be good.

THE TRUSTEES

BY DR SIMON J. MCPHERSON, LAWRENCEVILLE SCHOOL

[Read by Dean J. S. Van Meter]

1 It may be assumed, I suppose, for the purposes of this discussion, that by "powers" we understand the right and ability to exercise authority and control; and by "functions," the proper use of such powers in specific acts and in general influence. It may also be assumed that "the relative functions and powers of president, trustees and faculty" differ variously from

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those possessed and exercised by corresponding parties in Old World institutions. They are developments, still fluent and in process of realization, within our own educational system. Whatever we may think of their present evolutionary incompleteness, or even of their deficiencies, we must take them as they are and make the best of them.

It will be borne in mind that our own educational institutions are heterogeneous, to a considerable extent, in their types and in various elements of their internal administration. They are old and new, large and small, rich and poor. There are state institutions; institutions founded, and, in remaining instances, controlled and even managed by different branches of the Christian church; institutions established and sometimes dominated by individuals; and institutions combining at least two of these elements. But none of these is governed solely by its president, its faculty, or its alumni, nor is any controlled by a government department, or minister, of education; and, excepting proprietary schools, practically every one of them has its president, its faculty and its board of trustees.

2 Now in our most common type of educational institution, the powers if not the functions of the trustees are, at least before the law, preeminent. This is true whether the board is self-perpetuating, elected by the alumni, or appointed by the state or some ecclesiastical body. However we may lament or deride the fact, it is outstanding, established, well nigh universal. For better, for worse, we must adjust ourselves to it. However we might wish to modify it, we can hardly find a better way for the present than to accept and utilize it.

Possibly we may feel some slight but benign relief by trying to conceive the condition remaining if the average college, minus its trustees, should become completely independent and autonomous. If these nonprofessional trustees had worshiped the idols of the tribe or the market place, would the faculty, I wonder, be tempted to bow down to the idols of the cave; or the president, to the idols of the theater? Dr Edmund J. James reminds us in his recent inaugural address that "universities tend to become caste and class institutions. They tend to

become pharisaic in sentiment and action." He cites as examples, "Oxford and Cambridge at one time in their existence," and "nearly all the continental universities." We know the personal and institutional perils of professionalism, as urgent perhaps among teachers as in any other class. We appreciate the need and the obligation of keeping near to the human world. The crest of the highest wave is thrown up by the sea itself. We desire to keep our institutions responsive to the heart throbs of enlightened public opinion, for that it is which maintains us, corrects and finally judges us. We may fairly ask whether the American board of trustees be not an excellent organ for these purposes? Made up of various representative men, serving without salary, this body, at any rate, theoretically appears to be, for the school or college, a banking and trust company, a sanitary commission, a social mordant, an organ of public opinion, a jury. In any case its authority is paramount.

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What are some of the powers of trustees, all directly or indirectly relative?

a They, as a body corporate and politic, acquire, hold, maintain and administer the property of the institution. Like the House of Commons or of Representatives, they keep the purse strings in their hands. The bread on our tables and the clothes on our backs testify to the "relative" importance of this power. I have been one of the trustees in four institutions, and I can feelingly bear witness that they must beg, and yet support themselves. They buy and sell and invest and pay salaries from the interest, without any commission. Sometimes they lose money and then—at least the president and the treasurer do not think that the finance committee is composed of thieves and idiots. The financial power and responsibility of trustees are certainly great and unenviably trying, for these things are vital to the success of any institution, specially in recent days. Their relations with president and faculty in this work ought to be friendly and unstrained and cooperative on both sides.

b In the last analysis, the trustees elect and they may dismiss the president and faculty. This power is terrible if

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arbitrarily used. But it would still be so whoever held it. They should know the teaching force if they are to act justly, humanely and wisely. Yet they find difficulty in personally knowing it well. They must depend largely on the president, taking care to notice any idiosyncrasies on his part and to keep clear of any cliques or petty jealousies on the campus. They can not possibly avoid giving pain at times, but they are bound to inflict it only for necessary cause, and even then to hate such infliction. This necessity must be created for them almost exclusively by the interests of the students. For whatever may be said, and very much is to be said at many colleges and universities, in behalf of research work, the prime obligation, I believe, of every such institution is the education of its youth. The institution, with all its forces, president, faculty, trustees and everybody else, is for the student, and not he for it. The trustees have no right, legal or ethical, in my profound conviction, to interfere with any professor's free teaching of truth. Facts are facts and truths are truths, whether we like them or not. Nevertheless, in many departments of inquiry, the line between inherent truth and personal opinion, or even conviction, is a vanishing line. I am by no means clear that trustees should necessarily allow a teacher to exploit his personal opinions authoritatively. For instance, in economics, in sociology, in ethics, in religion, there is a disputed territory of opinion. What about the opinions of the trustees themselves? Do these set up another obligation? What also of chartered limitations, of the intentions of founders, or of the instructions accompanying specific endowments? Nice moral questions emerge here, which can not be resolved by irresponsible rhetoric.

c Trustees are the governing body in an institution. They are empowered and usually constrained by law to make regulations, to grant degrees, to enforce discipline. They are free to use their fiduciary discretion as to the methods by which these things are done, but they are responsible for seeing that these things shall be done. While their powers and functions are shared with president and faculty, whose expert advice

they must seek, and whose expert administration they should employ or follow, they are after all ultimately responsible.

3 But these startling powers of trustees have many limitations which largely determine their relative functions in the complex administration of an educational institution.

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a One of these is suggested by the significance of their very name. They do nothing for themselves; they discharge a trust. They must be faithful as trustees. They administer on a property, perhaps of high value, and they are under the deepest obligations to be scrupulous, not only in regard to the ethics concerning property, and the laws of the state applicable to its care and use, but also to the known wishes of its donors. If they fail in their fiduciary capacity, the president and faculty suffer grievous wrong and the institution itself fails. It is required in stewards that a man be found faithful.

b Trustees are expressly restricted by the provisions of their charter, which in general terms defines their powers and duties and those of president and faculty. This instrument is the common fountain of authority and obligation for the three, and it should unite the three, and all three should make themselves familiar with it.

c Trustees, as I have already intimated, are limited in their powers and functions by the applicable general laws of the state as well as by their particular charter. In some cases they are very properly required, in their capacity as trustees, to take a new oath of allegiance to the Constitution and laws of both the state and the nation.

d They are limited by the purpose for which their trust was conferred, namely, to afford a higher education to all that enter the institution. The appointed beneficiaries of their trust are the students, to whose welfare they devote themselves in the act of accepting trusteeship. This is the common, controlling aim alike of themselves, of president and of faculty. If all three keep their eyes on this sublime purpose, there will be little conflict of functions or powers, little aloofness or want of cooperation, and, indeed, little need of discussing their mutual relations.

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e You may think that trustees also are limited in their powers by their own ignorance. So indeed they are; so likewise are all of us, even presidents, professors and teachers. When an adult, specially if he be a leader, begins to see and say that he does not know, he is beginning to learn — practical psychology at least. Perhaps this is only another way of avowing that trustees are restricted by the kind of persons constituting their board. I take that view. So far as it is self-elective, I think that the supreme test of their fidelity is revealed in their choice of new members. For one, I strongly favor, except in very young institutions, making up the board, in part, of alumni representatives who shall, if possible, be elected by the body of alumni. I think that among the members there may well be a few, not many, educators. Educated persons are desirable, if they are not narrowly educated and not all educated on the same pattern. Wideness of vision and a diversity of viewpoint, and therefore of occupation, seem to me as essential to a good board as to a good jury. Should there be specialists among these trustees? Yes, if they have breadth. Ordinary specialists do better as expert witnesses, I think, than as jurymen.

f Trustees are self-limited by the delegation of their powers; for they must delegate many if not most of these, and their wisdom can in no other way be more clearly discriminated than in such delegation. It is just here that they most shrewdly exercise some of their chief functions as distinguished from their powers. They confer these powers on fit agents, notably on president and faculty, and they do not lightly take these powers back.

4 I have now suggested many of the relative functions and powers of the three classes under consideration. But I may expressly mention a few such relations.

a Of the president in relation to the trustees I should say: (1) He is their chief purveyor of information, their principal reporter. They can not weigh and decide unless they know, and, situated as they usually are, there are many things which they can not know unless they are informed. By virtue of his position, he is most fully conversant with the pertinent facts. This puts on him a burden of duty toward the trustees nearly

as great as that which he sustains toward the faculty or the students. But it seems necessary.

(2) He is their expert advisor as to administration, instruction and indeed all matters pertaining to his ample office. He may give fuller and more specific information and advice to their leading committees, but he must also guide the board itself to a true view of things.

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(3) He is their first executive officer. Very many of their decisions he must put into operation.

(4) He is their trusted colleague and collaborer. He should have, and he usually does have, a seat and a vote in the board. In any case, they must trust him and sustain him.

If he maintain these relations with them, the work will be pleasant, united and effective. Otherwise, nobody will be quite happy or enthusiastic and the cause will suffer.

b Of the faculty in relation with the trustees, I should say:

(1) It should have, in connection with the president, a large measure of approved autonomy in the organization of instruction and detailed government for the students. As a body of professional experts, it evolves and, if necessary, keeps evolving the curriculum for recommendation to them. Because its members touch the students constantly, not only in the classrooms but also, let us hope, in the generic life of the institution, it should understand these students thoroughly and should as kinsmen represent and stand for these students before the president and the trustees. It should be carefully graduated into live departments, in which every member of it has his place, his power and his accountability.

(2) The faculty should find open doors into the rooms of the trustees and their committees. If I were a president, I might possibly object to this, but as a trustee or member of the faculty, I should not; for the faculty needs representation on the common platform of the three related and controlling groups of the institution, not to start a strife of tongues nor to enlarge on small things, but to bring the pulsating life of all into view.

(3) Its members should know the trustees personally. This would be a difficult achievement for a large institution in this

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busy world, but it is important to a clear and cordial understanding. Big things sometimes improve by being made smaller.

If these relations can be created and maintained, they will make any college world larger and better and happier.

THE FACULTY

BY PROF. GEORGE STUART FULLERTON, UNIVERSITY OF PENNSYLVANIA

Since promising your committee to speak on the subject before us, I have felt sincere regret. Not that I think that the freest discussion of any such subject need give rise to the least ill feeling on the part of any one, if the discussion be carried on with good taste and in a kindly spirit. But the subject is a broad one and difficult; and I would rather listen to others than be forced to express an opinion myself. However, since I have promised, I shall lay before you some thoughts which have special reference to one aspect of the subject. The time allotted to me will not allow me to do more. I shall confine my attention to institutions of the rank of universities, and shall dwell chiefly on the duties and responsibilities of the faculty.

If we describe a university as consisting of a body of older scholars engaged in the investigation of truth, and a body of younger scholars to whom instruction is given by the former, we simplify matters too much. This is, indeed, the soul of a university, but this soul can not function without a body. In the present state of the sciences, extended investigations and adequate instruction demand great collections of books, stores of costly apparatus, expensive laboratories, etc. The university must possess land and buildings; it must take care of its students, and pay the salaries of its professors. It is an institution which stands in certain relations to the state, enjoys rights and privileges conferred by it, and is bound to make for these some return in services rendered. It is the recipient of bequests and donations from private individuals which lay it under legal and moral obligations. It is, in short, a great organism, related in certain complicated ways to the greater organism of the state — taking that word in a broad sense, and its administration is not a thing to take lightly. In order that

it may be properly managed, a variety of gifts seems to be called for, and a differentiation of functions.

This appears to be clearly recognized, and we actually find the control of the affairs of our universities in the hands of three authorities, the trustees, the president and the faculty. The trustees are theoretically supreme, but in fact delegate much of their authority to others. The president is their representative, and seems to occupy the position of a general manager. To the teaching force is usually committed the control of the curriculum and the details of instruction.

In these three authorities we have, I think, the materials of a good government. It seems fitting that the ultimate authority should rest with a body of men somewhat detached from the institution, not pecuniarily dependent on it, and a number of whom are practical men of affairs. It seems proper also that an organism so complicated should have a single executive head, charged with the duty of keeping under some sort of oversight each of its many departments. That some things should be left to the faculty is so plain that it need not be supported by argument.

When, however, we approach the question of the precise definition of the duties and responsibilities of each of these three authorities, we may well speak with hesitation. I shall not attempt to cover this field; such knowledge is too high for me. What I propose to do is to make a plea for an increase in the responsibilities laid on the shoulders of the teaching force, an increase which many professors would, I think, find burdensome. As the administration of different institutions differs a good deal in detail, I shall dwell, not so much on the part that is played, as on the part which I think ought to be played, in the government of a university by the teaching force.

At the outset, let me beg you to bear in mind two things: first, that it is only as a center of investigation and instruction that a university has any excuse for existing at all. This is its very soul, and all else — its grounds, its buildings, its invested funds, its rights and privileges, its officers of administration — can be regarded as only a part of the machinery that the proper

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functioning of this soul demands. It is to be regretted that so much machinery is necessary, for it is apt to absorb the attention. A university is sometimes judged to be prosperous when it is in the condition of a well fed, mindless man, or of a firm that succeeds in doing a large business in poor goods by means of energetic advertising. In the second place, let me remind you that a professor is directly interested in almost everything that can be done about a university. It seems easy to make a rough and ready division of duties, assigning to the board of trustees the control of the property of a university with the management of what may be called its "foreign affairs," and relegating to the faculty the advancement of science and the teaching of the students; but no complete separation of these functions is possible. The appointment of a new professor or the dismissal of a professor may raise or lower the tone of a whole faculty, and the policy according to which appointments and dismissals are made is of vital importance to the work of the institution; the establishment of a new department of instruction may cripple existing departments; the erection of buildings may make an adequate expenditure for books or apparatus impossible, or prevent the appointment of instructors more needful than either.

In view of such facts as these, I make no apology for urging that the faculty as such be brought into much closer relations to the board of trustees than is now the case at most institutions, and that it be, not permitted, but required, to lay before the trustees the result of its deliberations on a considerable number of matters which are at present regarded as hardly falling within its jurisdiction. The members of the faculty, I will not say, are, but I will say, ought to be, good judges of what will help or hinder their work, and it is for the sake of this work that the university exists. It goes without saying that it would be absurd to lay new responsibilities on the shoulders of the faculty without having some assurance that the responsibilities in question would be properly met. I shall have something to say later on this score; but first I shall try to make clear, by adducing a few particulars, what I mean by saying that it would be well to

give the faculty more of a voice in the administration of the affairs of a university.

1 I have said that the appointment of a new professor is a matter which concerns every member of a faculty. The quality of the work done by an institution, and its standing among other institutions, must depend ultimately on the scholarly abilities of its professors. If they are men of solid attainments, striking abilities and high ideals, the standing of the institution is assured, and nothing else can accomplish this end. A great university with a weak faculty is a contradiction, and can not exist as fact. The institution may once have been great, and may look forward to a recurrence of its greatness; but great it can not be so long as it has a feeble mind. To this mind every professor brings his contribution, and the appointment of an incompetent man to any chair ought to be regarded as the common misfortune of the whole faculty. It is not merely the misfortune of the small group of men who may already be teaching the same subject or allied subjects, though it touches these more nearly than others. It is a blow at the efficiency of the whole institution, and a step in the direction of the degradation of the faculty as a faculty.

Hence it seems proper that the faculty should be eagerly interested in the question of additions to its own ranks. It should give the most serious consideration to the problem of attaining a high standard of efficiency, and endeavor to rule out all personal considerations which might interfere with that end. It may well be that those who represent a given subject in a given institution are not, in the judgment of their colleagues, able to give the wisest and the most disinterested advice on the subject of a new appointment. It may be painful to oppose the efforts of such men to control the appointment, but a faculty which declines to interfere in such matters, out of a mistaken sense of courtesy to a group of colleagues, is false to its trust. When a chair becomes vacant, the faculty as such should have a voice in determining the kind of man that it is desirable to obtain. A sensible decision on this point can not be made without taking into consideration the peculiar

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nature of the work that the institution as a whole is best fitted to do, and intends to do. If it aims chiefly at doing advanced work with a comparatively small number of students, it may be wise to choose one kind of man, and, if it intends to do something else, it may be wise to look for a man of another sort. The question is surely one for the whole body of scholars connected with a university to consider. To consult only those whose work is most nearly related to that of the man it is proposed to appoint is unwise, for it is absurd that the representatives of each subject of instruction should be appointed according to a different principle, and the faculty reduced to a heterogeneous and inharmonious mass. To leave the whole matter to the president is little better. A university is far too complex an organism to be carried satisfactorily in the mind of any one man, and above all of a man burdened with the varied duties of a president. Either he must consult individual professors — in which case we have the evils of individualism, or he must act of his own knowledge — in which case he will often act in ignorance.

2 The severance of the relation between a university and one of its professors must be a matter of grave concern to the faculty as a whole. I refer here to the dismissal of professors who hold appointments without time limit. That men who have been engaged to teach for a definite term of years should sometimes be dropped at the end of that period is a matter of which no one can complain. It is extremely important that the question of such reappointments should be decided wisely, and should not be left to the judgment or to the prejudices of one man. But against the principle of dropping men who have completed the term of service agreed on, nothing can be said. The man takes a risk when he accepts such a position; he usually hopes to make himself so useful that he will be reappointed; he is sometimes deceived in his expectations. As he looks forward to receiving ultimately an appointment which does not entail such risks, he is not discouraged from persevering in his career. In all the professions beginners must make up their minds to face serious risks; and, if the goal before

them be sufficiently attractive, able men will not be discouraged from attempting to reach it.

The case of the full professor is a somewhat different one. His position ought to be a difficult one to obtain, and it ought to be a very desirable position, if the level of the profession is to be kept up to the high standard demanded by the nature of the work which is to be done. Men of ability and energy should be made to feel that it is worth their while to enter on an academic career, to spend many years in preparation for their work, and many more years in filling subordinate positions. They can not be made to feel this unless the post which they hope ultimately to secure be such as to repay them for their prolonged effort. It is right that I should say here that I think the lot of a professor, even under existing circumstances, is one by no means to be despised. He does not enjoy a very large salary, it is true; but his work is agreeable; he has from a fourth to a third of the year to himself, and may devote the time to investigations which are a joy in themselves and which he hopes may bring him renown; he holds a social position much above that of the great majority of men no richer than himself; his tenure of office is not, as a rule, insecure. If, then, I urge that his position be made one of greater dignity and security than it is at present, I must not be supposed to be asking that a particular group of unhappy men be made happy. The happiness or unhappiness of a limited number of individuals is not a matter of the greatest moment in any case. What is important is that certain positions be made so desirable that men even better than those that now hold them may be induced to compete for them.

One way of attaining this is to raise the salary attached to the office. Large salaries undoubtedly exert an influence even on the minds of those who are born to be scholars. It is however worthy of remark that the salary which is actually paid at present is not the chief factor in deciding men who are seeking chairs in our universities to go into the profession; and it is extremely doubtful whether the salaries paid will ever be so high as to command men of a high order, in the absence of other

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considerations. The degree of independence granted professors, the dignity of the position, the freedom from anxiety which security in tenure of office brings with it, certainly have quite as much influence as money in making a chair in a university a thing to be sought after. Some degree of independence seems absolutely essential, if the position is not to be made an absurd one. The duties of a professor are investigation and instruction. If he is not to teach the truth as it is revealed to him, but is to lay before the public just what some external authority — perhaps a president or board of trustees — may prescribe, he becomes a man of straw, and the university little better than a farce. If he may be deposed from his position for slight causes, he must be every night on a bed of thorns. Men who prepare themselves for professorships become unfitted to take up work of a wholly different sort. University positions are relatively few, and even a good man can not feel sure, when he loses one, that he will speedily obtain another. Men must feel secure of their position, if they are to give their undivided attention to their science and to their students. They must be assured that they can live, even if they can not live very well.

On the other hand, it is well to remember that absolute independence can not be granted to any member of a community, and that absolute freedom of speech never has been tolerated, and probably never will be tolerated in any civilized state. Men may think what they please, but even the private citizen may not shock the sensibilities of the community beyond a certain point by the frankness of his expressions; and there seems still more reason why those who occupy chairs in our universities, and speak for their institutions as well as for themselves, should recognize that their freedom is not absolutely without limits. It is conceivable that a professor should embrace doctrines so incendiary, and should set forth his views in language so startling, that it would be wholly out of question that he should be retained in his position as a public teacher. Here, as in most situations in life, we seem forced to make a compromise. A large measure of freedom appears to be necessary, but absolute freedom impossible. The question

before us is, how shall we determine the measure which may safely be granted?

Again. Professors partake of the frailty of our common human nature. If they are irremovable, a certain number of them may relax their efforts, and rest on laurels already won, or yield to the temptation to increase their incomes at the expense of their science. As we all know, such cases are by no means unheard of. Moreover, professors may, with the lapse of time, develop idiosyncrasies which quite defeat the purpose of their appointment. They may be unable to get on with students, may prove to be hopeless as teachers, or may be unable or unwilling to adjust their own work to the work of the university as a whole. That such men should be permitted to obstruct the activity of their department, perhaps a very important one, till such time as they may be removed by old age or by disease, does not seem reasonable. Universities have rights, as well as those who occupy chairs in them.

To meet all such cases as the above, and to lessen the discontent and apprehension which are generally aroused at present by the removal of professors—a discontent and apprehension which I can not but think distinctly harmful—I suggest the following: Let the proposed removal be reported to the faculty by the board of trustees, through the president; and let the whole matter be thoroughly discussed at some later date by a joint body consisting of the president, a committee of the trustees and a committee representing the faculty. It can not be to the interest of the faculty to defend men who are incompetent or who neglect their duty. It is very much to the interest of the faculty to see to it that desirable men are not made to feel insecure in their positions, and that errors in judgment are reduced to a minimum. I may add that the professor who has been found wanting by a committee of his peers, as well as by trustees and president, seems to have little cause of complaint if he is removed from his position, and it is likely that the public will turn a deaf ear to his upbraidings.

3 I have indicated above that all such matters as the establishing of a new department in a university, the expenditure

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of money for buildings, the purchasing of apparatus and books, etc., directly concern the faculty. It may or may not be a good thing for a university to attempt to spread its work over new fields. Local pride, or the accident of a promised endowment, should not mislead it into doing what it can not do well, and what, perhaps, does not greatly need to be done. The excessive zeal of individual professors should not be allowed to result in the hypertrophy of single departments to the detriment of the institution as a whole. Each thing that is done concerns all, and all should have some influence in determining what shall be done. Hence, I suggest that all such matters as those above mentioned be decided in conference with the faculty, and not independently of it. As the ultimate authority lies elsewhere, it will always be possible to eliminate from the considerations which determine the final decision advice which smacks of self-interest or is colored by prejudice.

4 The last of the points on which I have elected to dilate is the conferring of honorary degrees. The qualifications which must be possessed by those who would take degrees at our universities in the usual way, i. e., by earning them, it is commonly left to the faculties to determine. Mistakes are occasionally made, of course, but the conferral of such a degree is at least *prima facie* evidence of a certain measure of scholarly attainment on the part of the candidate. The recommendation of candidates for honorary degrees is not usually left to the faculty of a university.

Now, if there is one thing more than another about our universities that strikes the reflective man as anomalous, it is that they distribute every year a great number of honorary degrees, of which really very few are conferred solely in recognition of great attainments in science or letters. Political prominence, a reputation for philanthropy, popularity as a preacher, election to the presidency of a college — all these are regarded as establishing a sufficient claim to a doctorate of some sort. In speaking as I do, I mean to include our leading institutions as well as our lesser ones. Let any man read over the list of honorary degrees which have been conferred during

the last 10 years by a dozen or so of our leading institutions of learning, and he will be convinced that the eminence most highly prized by those who control them is not scholarly eminence, and that university degrees have largely lost their original and their proper significance.

It is not surprising that men in all walks in life should knock at the doors of our universities—or let their friends knock for them—with the demand that they be made doctors. Americans love distinction quite as much as other men. A German may become “Geheimerath,” or “Commerzienrath,” or a “Rath” of many other sorts, and may have the daily pleasure of hearing his title. If he be successful and energetic, he may become a member of many orders, and on state occasions may cover his breast with decorations till he resembles a Christmas tree without the candles. A Frenchman may become an officer of the Legion of Honor, and may wear the appropriate mark of the honor which has been conferred on him. Military titles and university degrees are almost the only resource of the American who wishes it clearly understood by the general public that he is not as other men are. Military titles are out of the question for some men, for it is not every one who wishes to serve even in the militia. But a university degree may be obtained by a man who attends quietly to his own business, whatever that may be, and who prospers in it. Meanwhile, the universities are placed in an anomalous position. They are giving pleasure, it is true, to a considerable number of unscholarly men, some of them men of much worth and deserving of the good will of the community; but they are doing this at the expense of rendering their own degrees meaningless, and bringing them into light esteem in the mind of the intelligent public.

To remedy this state of affairs, I suggest that the nomination of candidates for honorary degrees be placed in the hands of the group of scholars who are charged with the recommendation of candidates for degrees taken in course. I suggest also that those on whom this great responsibility is laid be given very clearly to understand that they must in all their nominations

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hold in view the aims with which universities have been founded and the purposes they are intended to serve.

You have seen that I plead for no slight increase in the dignities and responsibilities of university faculties. It is right that the question should be asked: Are the faculties able to meet such responsibilities properly? To this I must answer frankly, that I do not think they are at present. Men who have not been trained to responsibility are, as a rule, little fitted to assume much of it at once. I hope that I shall not give great offense to my colleagues if I say that an experience of a good many years has led me to conclude that professors are somewhat myopic and rather unpractical. In enthusiasm for his own department, a professor may easily forget the larger interests of the institution as a whole. Rivalries and factional strifes are not unknown among the brotherhood. The desire to be courteous to a colleague may stand in the way of remedying an abuse. Scholars are not necessarily acquainted with the world of men and things with which a university must stand in relation, and they may propose foolish measures. Even self-interest is a factor which must sometimes be reckoned with.

I believe there is much good material in the faculties as they are at present, but I think that it will need training, if it is to exercise the functions that I have indicated and others of the sort. I think, however, that, when new appointments are made, there should be an effort to secure men not incapable of exercising such functions. A transference of responsibilities might take place by degrees, without entailing any great risk, and it is such a transference that I urge.

In closing let me say a word about the president. "A visitor from Europe," says Mr Brice, "is struck by the prominence of the president in an American university or college, and the almost monarchical position which he sometimes occupies towards the professors as well as towards the students." It is evident that, were the modifications in the constitution of our universities, that I have suggested, carried out, the position of president would not be what it now is. The president would be, not a power outside of the faculty and placed in authority over it—too often a wall of separation between the faculty

and the board of trustees — but, rather, an influential member of the faculty and its natural leader. How the matter may strike one who has actually been president, I do not know. But to me it seems that some relief from the crushing weight of responsibility and from the innumerable duties now allotted to the president of a university might well be regarded as a boon. No man can do well what a university president is expected to do; and the mere fact that he is expected to do it, is enough to make trustees passive and professors selfish. That the ideal faculty needs such a leader as a president might be, I feel very certain.

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DISCUSSION

Dr James H. Canfield — Having served 14 years as a member of the university faculty, eight years as a university president, and six years as an educational trustee, there is naturally some doubt in my own mind as to whether I am brought here today as an expert or as a horrible example. Granting the truth of President Remsen's statement, that in a discussion of this kind one ought to confine himself strictly within the limits of his experience, it would not seem difficult for me to speak to the question. Yet it must be confessed that it is with great misgivings that I open the discussion. There is some question as to whether this subject is most wisely chosen, the personnel of this association considered and the themes in which it is presumably interested taken well into account. There is a question also whether it is possible to discuss this theme without incurring the danger of serious misunderstanding. Yet it would seem that there may be sufficient interest on the part of those present to warrant the action of the executive committee in the choice of the theme, and we certainly ought to be able to discuss a question of this kind without the slightest tinge of personal feeling.

There can be no doubt that in every university faculty are to be found gentlemen who are quite as competent to administer the affairs of the university as is its president. Beyond question, there is not a faculty in the country from whose number may not be drawn several men entirely competent for educational administrative tasks. The entire question of government and administration by the faculty is not based on any sweep-

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ing denial of executive ability on the part of the faculty, considered individually, at least, on the part of some. But in the discussion of this theme it is necessary to consider the faculty as a whole and it goes without saying, and naturally and properly and without adverse criticism, that the temper of mind which turns a man to the higher forms of scholarship and to investigation and research is not the temper which fits him for executive work. For this reason it is true that by far the greater number in every faculty neither desire to assume administrative burdens nor are extraordinarily competent for such tasks. In the average faculty of say 50 men, it is perhaps true that five will be found who are both willing and able to consider and solve administrative problems; it is doubtful whether the proportion exceeds this. Both experience and observation unite in saying that quite generally faculties prefer to be relieved of executive work; each member to be set unincumbered in the course which he has chosen as his specialty.

Of course there are faculties, and faculties — we may as well be frank about that. On the one side we find conditions which have prompted the epithalamium of President Remsen; while on the other is that illustration of friction and disintegration, known to some of us at least, in which, if the trustees of a certain institution had followed the suggestions of different members of the faculty with regard to other members of the faculty, there would have been no members of the faculty left in place. It is true that these are two extremes — it is to be hoped that the last is an extreme — and between these two lies the experience of the colleges and universities at large, in which admirable human traits and some not so admirable are quite generally blended.

Some time since I chanced on a quotation in an educational pamphlet which interested me very much. It defined the relations of a president of a college or a university to the trustees and faculty, and ran as follows:

To the regents (trustees) he must be the one who wisely yet vigorously executes their plans, who sees that every man is well placed and that every dollar is well spent, who can at any time put the board in possession of any information it may need regarding the material condition or educational work of the

university, and who will make it possible for the board to consider general policies rather than be compelled to master details. He is to keep the board in touch with every person and every interest and every condition; but only in touch, not burdened thereby.

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To the faculty he is the one who makes possible uninterrupted attention to the work of investigation and instruction, who sees that everyone has the greatest equality in right of way and all reasonable assistance in running his race, who prevents friction and removes misunderstandings; who is sufficiently sympathetic and sufficiently informed as to the work of each to quicken with commendation where commendation will count most, and to stand like a wall of adamant between an instructor and unjust criticism or attack from either inside or outside the university world; and who possesses wisdom, energy and tact—the three conditions precedent to successful leadership.

This seemed to me exceedingly wise and very well put, and at the same time strangely familiar. I set about tracing its origin, and found that it was a quotation from a letter of acceptance which I had written when first entering on an educational administrative position. It is not remarkable therefore, that it seemed both wise and well expressed. But there seemed to be something lacking; and after a while it came to me that there was somewhere a memorandum of a clause which I had withdrawn from the original draft of this letter because not possessing sufficient moral courage to include it. That memorandum was found among some old files of papers; and it seems only proper today (when there is no such need of moral courage on the part of the speaker) to add it to the paragraphs already quoted:

Whose authority will be entirely commensurate with his responsibility; and whose seat in the saddle will be sufficiently firm, and whose moral courage will be sufficiently strong to secure the prompt dismissal of every unworthy and incompetent instructor—in the interests of the students, of sound education, of wise administration, of economy, and of a decent regard for the reputation and security of tenure of the more worthy members of the faculty.

You will see that this recognizes, as did President Remsen, the trustees as the source of all authority and as carrying the chief burden of responsibility. The president is an executive,

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though necessarily something more; and the members of the faculty are also executives and administrators, each within the line of his own department. This is a natural division of labor, it is a division of labor which corresponds to the most approved forms in the administrative world today, and it demands the same lines of organization and methods of work which are bringing the American people so rapidly to the front.

If you are to build a house, you know in a general way what you wish; but your first and wisest action is to call in a competent architect, ask him to submit plans, and very largely abide by his judgment. That is precisely what a wise board of trustees will do regarding a president. That is precisely the wisest thing done by the trustees of Johns Hopkins at the very outset; action on their part so approved by the world at large that this might almost be called Gilman University. The trustees may not quite say to the president, "Take this institution and run it as though it were your private business," because that is practically to shirk all responsibility, and this they may not do. But surely the relations to the board of a wisely chosen president will be exactly those set forth in the first paragraph of the letter from which quotation has been made; and these call for large freedom of action on his part.

Precisely as the board delegates certain duties and responsibilities to the president and leaves him a free hand, the president will delegate certain responsibilities and duties to the faculty and leave each with the initiative and with a free hand within his department. He would be utterly unworthy of his position, if in all administrative matters he did not seek constantly the advice of his faculty; and his success certainly depends on his approving to his faculty his choice of ways and means. But all this is a very different matter from being obliged to share with his faculty his responsibilities and his authority, and this sharing is that which I understand is sought by the paper read by Professor Fullerton.

In all departmental expenditures, in all departmental appointments, in departmental courses and methods of work, the department itself ought to take the initiative, always by and with the advice and consent of the president and the trustees. This is

necessary in order that departmental matters may conform, reasonably at least, to the general lines of policy established by the trustees. But, when it comes to the apportionment of the resources of the institution, to the consideration of general expenditures, and to the choice of administrative details, it seems absolutely impossible to share all these with the faculty, and it is unwise and impolitic to ask the faculty to carry a part of this burden. There have been a thousand experiments in these directions without one of them having been entirely satisfactory or even reasonably satisfactory. Faculties, as a whole, can not be expected to distinguish between departments, to determine the comparative values of departmental work, and therefore can not say what shall be advanced and encouraged and what needs to be held in check: in a certain sense at least, what needs to be rewarded and what needs to be punished. There are times in the history of every institution, as in every business venture no matter how well conducted, when in all probability it would mean absolute bankruptcy if the actual financial condition were disclosed. There are times when it is most desirable and most convenient for the members of the faculty themselves to be able to say truly that they do not know the exact status. And yet without knowing the exact financial status, they can not act wisely and efficiently. The proposed increase of faculty responsibility would be simply and inevitably the old story oft repeated of the weakness of divided responsibility, in place of the energy and (proper) secrecy and despatch possible only to a single administrator.

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Times have changed, and we change with them. What was best and possible in the small college of 50 or 75 years ago, is absolutely impossible in the larger college or the university of today. A hundred comparisons might be made on either end of the line, between college administration and the general administration of the business world, each of which would sustain this contention. We have reached the point where we must secure the highest efficiency in administration as well as the highest efficiency in departmental work; and in the very nature of things the two can not be successfully commingled.

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[The speaker illustrated his discussion at every point by experiences of his own in each of the three divisions of college and university life, through the last quarter of a century; and closed by saying that, while a college should never be managed as a shop or a factory is managed, he most sincerely believed that all successful educational administration depends on a wise differentiation of the responsibilities and duties of trustees, president and faculty, with a clear recognition of the interdependence of all three, and of the fact that all are working for a common end — the inspiration and uplifting of the student and the large and generous service of the commonwealth.]

Pres. James M. Taylor — [A summary] The very worst form of government for a college or university is that of a faculty. That is not because there are not able men in every faculty who are capable of administering the institution, but because in the nature of the case the government of a faculty is that of an oligarchy. The evils of a democracy are distinct, and of a monarchy describable, but nothing is so bad as an oligarchy, and to that condition every faculty government tends or has come. A faculty is made up chiefly of specialists, for the most part untrained in the business of administration and without special responsibility for the college and its larger relationships. They are interested, and they ought to be, chiefly in particular departments. Moreover their legislation on minor matters, which are too often magnified into principles, and with individual concerns of students, in themselves unimportant, has no tendency to enlarge their views of administration. All the evils of special legislation as noted in our political conditions grow rankly in faculty procedure. Again, the special office of the faculty is to teach. It is a waste of energy and a misuse of power to expend the strength of specialists and scholars on administrative detail. Any well organized college office can do in a few minutes the work that it takes a faculty hours to accomplish, and can do it as a rule much better. That marks the enormous waste of the best material in the educational world, and it marks also a most unhappy thing for scholarship. The introduction into lives that ought to be kept to the quiet and peace of a student's research, of the elements of admin-

istrative concern and worry, with consequent waste of energy and time, and the present outreaching for more of this particular kind of power, are not favorable signs for American scholarship. One might also venture the remark that, even in purely educational questions, it is a great stretch of imagination to think of the members of the faculty, as a whole, as experts in educational theory. In the interests, therefore, of economy of the highest mental life, the work of administration should be kept to narrow limits and specially trained individuals. President Taylor referred in this connection to no. 70 of the *Federalist*, where Hamilton deals with the question of a vigorous executive and its supposed inconsistency with the genius of Republican government, indicating that with plurality in the executive comes always a tendency to conceal faults, to destroy responsibility, to divide the censure of public opinion where due, and to render its aim uncertain. Unity conduces to energy, decision, activity, despatch.

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President Taylor referred to what had been claimed regarding the appointment and removal of professors and argued, not only on the basis of what he had urged but of the teaching of experience, that inefficiency would mark such a method of appointment. He instanced one case where it took a university eight years to fill a certain chair. As regards removals, he indicated the special applicability of Hamilton's doctrine regarding the division of responsibility with the plural executive, and showed how the sympathy of professors with one another and the personal relationships involved would make what is always a most difficult step practically impossible, if the responsibility were with the faculty.

It is to be remembered that all the wisdom, experience, and common sense of the members of the faculty are at the call of the trustees and president, and no one with any qualifications for the administration of a great institution would for one moment dispense with these even if he were allowed to. On the whole, it would be better to confine the legislation of the faculty to educational policies and principles and to make these subject to the veto of the president with the right of appeal from his decision to the trustees. All this is urged in the interest of the

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greatest work that any faculty or any body of men can do, namely, teaching and investigation.

The chief authority of the college should be in the hands of the president. This is not based on a view of the dignity or aggrandizement of the office but on the fact that experience shows and all the tendency of modern organization has emphasized the fact in government, corporations and business houses, that a single responsible head guarantees the largest efficiency. The proposition that the president's office should be put in commission because its power and duties are so manifold that no one can adequately perform its functions, ignores the fact that no great head of a business house or government does all its work. If a functionary can not work through others, unifying all, he is not an administrator. But it will be found in colleges as in other corporations that decentralization will promote friction, waste and inefficiency. Under the trustees the president is their representative and directs the whole institution under its organic law. It also guarantees the rights and privileges of every other officer within his sphere. If a president can not carry his duties or can not live in harmony with others and respect their places and dignities, he should be put out. This claim for power in the hands of the president, commensurate with his responsibility to the trustees and the outside world, is based on the nature of efficient administration and has no respect to the dignity or the honor of the position.

It was pointed out in conclusion that the present organization of trustees is an advantage to an institution, that it gives a wider outlook than is possible to men engaged in simply professional work, that the boards of trustees have seldom if ever assumed to dictate in purely educational questions, and, if they have done so, it has been commonly under the leadership of some expert. The highest function of a board of trustees is to appoint a president and to see to it that he performs the duties of his office, and to serve as a court of last resort. But whatever is done or left undone as regards the trustees and president, it is clearly demonstrated in the interests of scholarship that the functions of administration may be best performed, not by train-

ing the whole faculty to be presidents, but by training on the one hand a race of scholars and teachers, and on the other a race of administrators with scholarly interests and appreciations and specialists in educational practice and theory.

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Dean T. F. Crane — I confess I am somewhat surprised at the remarks of the last speaker. I should have supposed that as a college president he would have taken a different attitude in self-defense.

It seems to me that the numerous and increasing demands on college presidents make the burden almost too great to be borne. They are borne, and well borne, by the present incumbents of these high offices, but it is for their successors that I fear, and I believe it will be necessary in the future to devolve on the faculty more and more of the administrative duties of the position.

I think this is also necessary in order to train the faculty to bear the share of administrative burdens which I believe belongs to it. When the trustees of Johns Hopkins University were recently obliged to seek a head for that famous institution, it was from the faculty that he was selected.

The administrative officers of every university, the presidents, deans etc., must be chosen from the faculty, and it will be impossible to train up these officers unless the faculty is accustomed to a larger share in the administration than has been customary in the past.

I think the tendency is everywhere to recognize this fact and to relieve the president of many of his former burdens by the appointment of administrative officers, such as deans etc., who in many cases have charge of the discipline of the college, a duty once invested in the president alone.

It is for reasons of this nature that I believe it is wise and necessary for the president to share to a greater extent his administrative functions with the faculty.

Presi-
dent's
address

Friday evening, November 28

PRESIDENT'S ADDRESS

EXISTING RELATIONS BETWEEN SCHOOL AND COLLEGE

BY HEAD MASTER WILSON FARRAND, NEWARK ACADEMY

The growth of cordial relations and of cooperation between school and college in this country has been specially marked during the last 10 years, and in no part of the country has this growth been more noticeable than in that geographic division of the United States known as the "Middle states and Maryland." Even at the risk of being charged with provincialism, I am inclined to assert that this growth, and the relations now existing between higher and secondary institutions of learning, can be studied better here than in any other district; and it will surely not be considered by this audience a vainglorious claim that a large share of the credit for the improved condition of affairs in this respect is due to this association.

It was in 1892 that the College Association of the Middle States and Maryland opened its doors and welcomed to its fire-side the schools of the region. This was not an original move, for a few years before a similar organization had been formed in New England, that breeding ground of associations. The possibilities and the practical value of such a union of interests were clearly recognized by many of the farseeing members of the College Association, but there was some opposition, and more skepticism. A few schoolmasters attended the meeting at Swarthmore, in order to let the college representatives know how "willing" we were, and I well remember a conversation between the sessions with a certain college president, who said to me: "Why do you want to come in with us? We have our problems, and you have your problems, but our interests are not the same." I doubt if a college president could be found willing to father that remark today.

In the summer of the same year, 1892, the National Educational Association had taken a momentous step by the appointment of the famous committee of 10, under whose auspices were held a series of conferences on the various subjects making up the

school curriculum, the committee and each of the conferences being composed of both college and school teachers. The work of this committee and the value of it to education in this country are too well known to call for extended notice. It was the first systematic attempt to consider in all its aspects the broad question of the school course of study, and it has had a profound influence on American education. The programs suggested by the committee will not be found in many schools, some of its conclusions, and some of the pronouncements of the individual conferences have not been accepted by the sober judgment of the educational world, but its service was none the less marked. It unified and cleared educational thought by supplying an authoritative basis for discussion, it formulated and stated in concrete shape many of the problems that up to that time had been vague and formless, and, if it did not solve these problems, it threw a flood of light on them. It is not too much to say also, what is more pertinent to our present discussion, that the work of the committee of 10 established beyond peradventure the wisdom, and even the necessity, of the union of school and college forces to secure an adequate solution of our educational problems.

In 1893 came the first tangible result of the union of forces in this Middle states association, when, on the motion of President Low, a committee, consisting of five college professors and five schoolmasters, was appointed to see what could be done toward securing uniformity of entrance requirements in English. The work of this committee is well known — how it secured the appointment and cooperation of a similar committee from New England, and later of still other committees from the Middle West and South, how, wonderful to relate, this joint body succeeded in agreeing on a uniform requirement, and how, still more wonderful, this requirement was adopted by nearly every college in the United States. The point with which we are concerned now, however, is the practical cooperation in this work of school and college teachers. I am disclosing no secrets of the prison house when I say that work on that committee proved a revelation to every one engaged in it, and I think that I am within the limits of strict truth, when I say that the great value of

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the committee's services to education lay, not in its securing of uniformity of English requirements, great as that service was, but in bringing into harmony and into cooperation school and college teachers of English, in securing on the part of each an understanding of the special difficulties confronting the other, and in arousing in both a realizing sense of the identity of their common problem—that of rightly training the student in the use and appreciation of his mother tongue.

In the winter of 1895-96 another step was taken of unusual interest, though the tangible results were by no means what were hoped for. I refer to the so called "Columbia conferences" of 1896. These had no official connection with this association, but were so largely actuated by its spirit, and so largely composed of its own members, as to seem almost part of its work. At the invitation of President Low, Harvard, Yale, Princeton, Columbia, University of Pennsylvania and Cornell sent delegates to each of six committees, devoted respectively to the subjects of Latin, Greek, French, German, history and mathematics. An equal number of schoolmasters was invited to take part in the conferences, so that each committee was composed of six college teachers and six school teachers. Each committee succeeded in agreeing on the statement of an entrance requirement in its own subject, and these were recommended to the six colleges for adoption. It is one thing, however, for a delegate from a college to agree to a matter in a conference, and quite another thing for the college faculty to ratify his action. Two or three of the colleges concerned adopted the recommendations of the conferences, but the others declined to do so for one reason or another, and the whole matter was finally dropped. The movement was not entirely without result, however; modification of requirements was made along the lines suggested, so that the existing discrepancy was somewhat reduced, the colleges were brought more squarely than ever face to face with the evils arising from a lack of uniformity, and a great gain was made in bringing about a better understanding and heartier cooperation between school and college men.

The next notable step in the same direction was the appointment by the National Educational Association in 1895 of the committee on college entrance requirements. This committee presented in 1899 an exhaustive and most valuable report. It adopted the wise plan of calling on existing organizations, such as the American Historical Association and the Modern Language Association, to frame requirements in their respective subjects. These were drawn up in every case, I believe, by joint committees of school and college teachers, and the work was so well done that, when the College Entrance Examination Board took up the task of framing requirements, it found ready to its hand authoritative statements, that needed only slight editorial work to put them into usable shape. The work of this committee has done more than is generally realized to bring about an adequate solution of some of our most troublesome problems.

The latest step in the series was the establishment in 1899 by this association of the College Entrance Examination Board of the Middle States and Maryland. I need not recount to you the history of this movement, for it is part of your records and fresh in your memory. It seemed almost Utopian to imagine that one set of examinations could serve for admission to any college in the country — except Harvard, but thanks to hearty recognition and cooperation on the part of the colleges, thanks to wise and judicious planning, thanks to skilful and broad-minded administration, the seemingly impossible has been accomplished, and the board stands today a successful fact. It is not too much to say that the establishment of the board would have been utterly impossible at the beginning of the decade, and is the crowning achievement of 10 years of steady progress.

I have thus reviewed rapidly the salient points in the history of the relations between school and college in the last 10 years. I have touched only on those movements that began in our own domain of the Middle states and Maryland, or that were truly national in their scope; I have said nothing of the organization of associations similar to this in the West and South; I have

passed over many instances of hearty cooperation, many cases of valuable service; my catalogue has been but partial, but it has been sufficient, I think, to prove the point that I am endeavoring to make, the marked progress during the last decade in the establishment of cordial relations and of cooperation between school and college, and incidentally the part played in that work by this association.

The situation has changed materially in 10 years. Then we schoolmasters were in the position of striking miners; we were fighting for the redress of grievances and for the recognition of our union. Today we do not even ask for arbitration; we are able, speaking broadly, to take up with the colleges almost any problem as a matter of mutual concern, to be settled on the basis of the best interests of education. And yet, marked as has been the advance, cordial as are the relations, genuine as is the understanding, the situation is not all that is to be desired. I do not say this in a spirit of complaint; my feeling is chiefly of appreciation and gratitude, but it is important to see the situation clearly, and my aim is to point out frankly and plainly certain respects in which matters can be, and should be improved.

In the first place, the attitude of some schoolmasters is not altogether conducive to harmony. At a certain gathering last winter, when the advisability of having school teachers take part in the work of the examination board was being discussed, a certain head master said, "Let us have no dealings with the enemy! Let the colleges set their own examinations, and let us keep ourselves free to fight." I have in my possession a letter from a valued friend, a head master of recognized ability and of more than local reputation, protesting against the "catalogue of injustice to secondary schools," and adding that "patience has ceased to be a virtue, deference is an absurdity." These are exceptions, but they are not solitary, and their existence shows that there is a feeling still smoldering. Partly this feeling is due, no doubt, to our inborn love of fighting, which dies hard, partly to our natural conservatism, which does not fully grasp the altered condition of affairs, and partly, per-

haps, to the fact that some just causes of irritation still remain. President's
address

In the second place, the statements that I have made in regard to the cordial treatment of the schools by the colleges do not apply equally to all colleges. There are institutions that meet the schools with the most admirable frankness and freedom, in a spirit that inspires confidence, but there are also others. There are a few that still maintain, as clearly as they dare, that the college is the supreme arbiter, that it is its province to say what it wishes, and that it is the school's part to conform. There are more that recognize the desirability of cooperation, but fail in the application of the principle. This is due, I am convinced, mainly to ignorance of actual conditions. I have seen college officials astounded when the practical effect of certain actions was pointed out to them. They had intended to secure a different result, but they did not know the true conditions.

There are very few colleges today that are not honestly trying to meet the schools halfway. It seems possible, however, for a college to lay down officially a line of policy, and for members of its faculty to nullify that policy in action. We have been discussing this afternoon the relative powers and functions of president, trustees and faculty — altogether too delicate a subject for a mere schoolmaster to touch. It was suggested to the executive committee by a college professor — whether out of the depths of bitter experience deponent sayeth not — “but I am not sure that the schoolmaster can not throw some light on the subject.” President Eliot once said that it appeared to be easier in practice for a department to determine the policy of the university, than for the university to determine the policy of a department. It would not be conducive to harmony if I were to bring forward concrete instances in support of this position, but you may rest assured that if it were wise to do so, any doubt that might linger in your minds would be entirely removed.

Do I make clear the point at which I am aiming? It is that in some institutions, which as institutions are in hearty co-operation with the schools, individual professors and indi-

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vidual departments nullify, in part, the official policy of the college. This state of affairs is due to two causes. In the first place it is due to defective or faulty organization. This question is altogether too delicate for me to deal with in detail, even if I were competent, as I am not, but I may say in passing that the question of university organization is one of the most pressing and most vital educational problems of the day, that the defects of organization are more clearly evident to those outside than is generally suspected by those within college walls, and that these defects have an influence on interests far broader than the simple prosperity of the institution. The real reason, however, is not to be found in defective organization. It lies in lack of knowledge on the part of those charged with the conduct of affairs. When we consider how few of the professors in certain institutions ever come into direct contact with schoolmasters in such associations as this, or ever engage with them in free discussion of their common problems, we cease to wonder that their judgment is sometimes one sided, and that they occasionally carry into effect measures that produce startling results.

There has been an immense improvement in the relations between school and college in the last 10 years, and this advance has been due not to coercion, but to the recognition on both sides that the problem is a joint one, and to the full and frank union of forces to secure its solution. That the relations are not yet perfect is due to the fact that the leaven has not yet permeated the whole lump. The desired end will be most speedily and most surely reached, by following along the same lines, and by using every possible means to bring school and college men and women into closer touch and into fuller understanding.

And there is need that they should be brought into closer touch and into more complete cooperation, for there are problems pressing that call for the united wisdom and the united strength of both parties. These problems may be roughly divided into three classes, those that concern the school, those that concern the college or university, and those that concern

both alike. A little reflection will show, however, that each has an interest in even those problems that seem peculiar to the other. President's
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Of the problems that concern the school, the first that thrusts itself on us is that of the kindergarten. It is with fear and trembling that one ventures on this topic, for he is a brave man who dares to lay profane hands on its sacred mysteries. Let me hasten to assert that I am not attacking the kindergarten. I am simply suggesting with all possible deference, that the last word about the kindergarten has not yet been said, that there is still a problem there to be solved, and a problem not altogether easy of solution.

The problem of the kindergarten is suggested by its results. Of its excellent results when applied to the children of the very poor, often with intellects stunted by improper nourishment and unfavorable surroundings, there seems to be little doubt. In fact, I am not sure but one can say with safety that the kindergarten is admirably adapted to the children of the very poor and of the very rich, whose parents alike, because of ignorance, or because of indifference, because of stress of life or because of social strenuousness, are unable to give them that care and that training that come best from the parent's hand. With the bright, normal child, however, coming from the typical American home, the results in many cases — not all — are such as to rouse serious question.

It is difficult to summarize these results with confidence and accuracy, for it is not easy to tell with certainty how much is due to the child's personality and home training, and one is soon forced to the conclusion that there is as much difference between individual kindergartens as between individual schools of higher grade, or even as between individual colleges. Still, in spite of the difficulty of the case, certain impressions are formulating themselves with growing distinctness in the minds of careful observers. There is an increasing distrust of the physiologic soundness of some of the kindergarten ideas, caused by the many cases of eye strain and nerve irritation that appear to be traced directly to its doors; there is a feeling prevalent that many kindergarten children develop an undue sentimentalism and an

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abnormal imagination; and many primary teachers are of the opinion that the children who come to them, while alert and responsive in mind, are lacking in power of continued application and in capacity for independent work. These are no new criticisms, but the number of those who make them is increasing, and they can not be lightly brushed aside.

A little study of the kindergarten, its origin, its theory and its growth throws some light on the subject. Fröbel was a great man, with a keen insight into child nature. He was an educational prophet, with a message of truth and of power, but he was not inspired, and he was not infallible. His pedagogy was better than his philosophy. His educational precepts are often distinctly sounder than the symbolic and mystical ideas on which he bases them. He developed a system of elementary education in many respects admirably adapted to child nature, but curiously permeated with his symbolic ideas. It was a system adapted in its external features to the children with whom he came in contact, stolid German children, largely of the peasant class and from three to five years of age. Now, given a system like this, based on an everlasting truth, but permeated by a questionable and seductive philosophy, and adapted in its external features to children of a particular type, is there not call for unusual judgment and discretion when it comes to developing the system and applying it to children of another race and another temperament? When it is interpreted by immature young women, frequently of the sentimental order, who after a "normal course" of a few brief months are graduated as priestesses of the mystic cult, and when this system, so interpreted, is applied to high strung, nervous American children of 6 and 7, often 2 and sometimes 3 years beyond the kindergarten age, is there any wonder that the results should be what I have said observers find them?

Let me repeat that I am not attacking the kindergarten. I am only trying to save it from its friends. Let me also hasten to add that there are kindergartens and kindergartens, and that the results are not all alike. My object is simply to raise the question whether the kindergarten enthusiasm has not outrun itself,

whether there is not good reason for feeling that the development of the kindergarten in this country has been too rapid for normal, healthy growth, and whether the problem thus raised is not one that in its solution calls for the highest and the best educational thought of the country?

Akin to the problem of the kindergarten is that of the elementary school course of study. There seems to be a growing belief in the omnipotence of education. Every fault in our individual and collective nature is ascribed to defective education, and the weaknesses of heredity and environment that the kindergarten does not profess to overcome are calmly turned over to the school to remedy. When one stops to combine and collate the various theories propounded in our newspapers, at our mothers clubs, and at our teachers institutes, one is filled with awe.

It is not enough that the child should learn to handle skilfully the tools of all learning—the three R's; his sense of form and his esthetic nature must be developed by drawing; his hand must be trained by manual work; his musical nature must be awakened by song; he must be brought into harmony with his external environment by means of nature lessons and the study of science; his patriotic impulse must be roused by the study of American history and by flag drills; temperance must be instilled into him by lessons in physiology with special reference to the effects of alcohol on the human system; his imagination must be cultivated by means of acquaintance with Greek and Norse mythology; he should gain some knowledge of the great heroes and events of general history; through the plentiful reading of masterpieces he should acquire a love for and an appreciation of the best literature, while at the same time his mind should be stocked with choice gems of prose and poetry that will be a solace and a comfort to him throughout his later life; it will be well if, by displacing a little arithmetic or geography, he can gain some knowledge of the elements of Latin or of a modern language; in some manner there should be roused in him a love for trees, a respect for birds, an antipathy to cigarettes, and an ambition for clean streets; and somewhere, somewhere in this wild chaos, he must learn to spell! All these things, together with sewing, cooking,

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carpentry, principles of morality and gymnastic exercise, can easily be acquired in the grammar grades, provided only we have good teaching and proper economy of effort. Do you wonder that sometimes teachers in progressive schools confide to us that they fear their pupils are slightly bewildered? Do you wonder that pupils do not gain the habit and the power of concentrated, consecutive work?

I am drawing no fancy sketch. Every one of these claims that I have catalogued, you have heard made, in all seriousness; you have heard them greeted with applause; and you have seen special associations organized to further each one of them. Am I not right in saying that there is a pressing problem here, a problem too serious to be left to mothers clubs, or to educational enthusiasts? These problems of the kindergarten and the elementary curriculum concern mainly the schools, but they are fundamental. Each step in education conditions that which follows, and the university is affected by the kindergarten. They are school problems, but they need for their adequate solution the highest and the best thought in the whole educational field.

Besides these problems of the school there are certain problems of the college or of the university that thrust themselves on our attention. First of these is perhaps the question of technical and professional schools. Engineering in its various forms has developed with amazing rapidity during the last 20 or 30 years. The profession has steadily grown in dignity, in influence and in opportunity; it has called for a constantly increasing number of men, and it has steadily raised the standard of attainment necessary for success. The natural result has been the rapid growth and development of engineering schools, that has been such a marked feature of modern educational progress. Like every such rapid growth it has been marked by confusion and lack of unity. We have engineering schools calling for little more preparation than can be acquired by a year in a good high school, we have those whose standard of admission is fairly comparable to that of the ordinary college course, and we have some that call as a prerequisite for two or three years of collegiate work or their equivalent. The courses offered are equally diverse. In some the entrance requirements are fairly commensurate with the diffi-

culty of the course; in others they are absolutely misleading. In some any student of fair ability working with reasonable industry can expect to earn his degree, but in others no one but a mature student, of more than average ability, and of robust health, can hope to go through without breaking down. In some the studies are exclusively technical, while in others there is some semblance, at least, of a more general culture. Perhaps this diversity is wise; possibly there is need for work according to all these varying standards, but on the surface the diversity appears to be haphazard rather than of settled plan. At least, there appears to be a problem here, and a problem that should not be solved by the university alone, but that calls on the one hand for the aid of the engineering profession, which uses the finished product, and on the other for that of the school, which supplies the raw material.

Akin to this is the question of the status of the other professional schools, specially those of law and medicine. Is the tendency to elevate many of these into purely graduate schools, requiring a bachelor's degree for entrance, wise? Or, if wise and desirable, is it feasible for more than the very few? The question is a broad one, and one in which the schools have more than a passing interest. It means a great deal to us whether a considerable percentage of our pupils are to be prepared directly for professional study or whether a college course is to intervene.

A somewhat different problem, but yet akin, and even more vital at the moment, is that of the length of the college course. I have no intention of discussing this question, tempting as is the opportunity, but it will not be amiss to call attention to one or two considerations that are sometimes overlooked. The problem is one that is forced on the college; the proposal of a shortened course is not the result of seeking for some new thing, but is born of a desire to remedy an existing condition. The quantitative and qualitative increase of college requirements on the one hand, and the steadily growing demands of professional study on the other, have so lengthened the time needed for preparation for law and medicine that the age of beginning one's life work is forced up to an unreasonable point. Three results follow.

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Some men begin the practice of their professions too late in life, some skip the college altogether, going straight from the secondary to the professional school; and some are turned aside from the professions of their choice by their inability or unwillingness to give the time needed for full preparation. Similar results follow in the case of those destined for business, and no one knows better than the schoolmaster how many a man is turned aside from a college course by what seems to him its inordinate length. Two proposals are before us to remedy the difficulty. One is squarely to shorten the college course to three years; and in so far as this is a compensation for the abnormally increased admission requirements, the plan is at least logical. The other proposal is to cut the present college course in half, and either to give the bachelor's degree at the end of two years, or to allow the beginning of professional study at that point, giving the degree two years later. There is an absolute demand, I believe, for such a two year course preparatory to professional study, but I wish to emphasize the point that the establishing of such a course is one thing, and the granting of a degree for it is a very different thing. The one may be imperatively needed, but the other does not necessarily follow. An ordinary school course is not an adequate foundation for professional study, but four years is more time than can be added to the preparation for most students. Unless something like a two years college course is offered, the tendency to skip the college will increase. The immediate effect of this will be a tendency to bolster up and extend the school course so as to afford a more adequate preparation. Here is one of the points at which the school comes into the problem. Any change in the status of college and professional courses has a direct effect on the demands made on the schools. I can not here discuss the question fully, but I wish to enter an emphatic protest against the existing tendency to turn college work over to the schools. We are now doing a large share of freshman work, and the result is not satisfactory enough to warrant an extension. We can do certain things better than the college, but we are not equipped to do college work, and the educational result will be distinctly better if we confine ourselves to our

proper sphere. It will be a sad day for American education if the dream of certain enthusiasts comes true and the high school supplants the American college, or if the college course is crushed out between the upper and the nether millstones.

The problems thus far mentioned are generally regarded as peculiar respectively to the school or to the college, but I have tried to indicate how each is concerned in the problems of the other. The greatest weakness in American education is the way in which it is chopped up into distinct sections, with untrimmed ends that leave ragged gaps between. If the education of a boy or girl is a continuous process, what affects one step in the process affects the whole. The training in the earliest years conditions to a greater or less extent the work in the latest, and we of the schools, therefore, have the right to call on the wisdom and influence of the universities to aid us in making that early training more efficient. College and professional courses directly affect and are affected by secondary school work, and no solution of their problems will be adequate which ignores that fact. The workers in no stage of education have any right to say, "This is our province, where we will work our own will."

There are some questions, however, which so directly affect both school and college that no argument is needed to show that they are joint problems, to be settled only by joint discussion and joint action. The first of these questions is that of uniformity of entrance requirements. The principle of uniformity does not necessarily demand that all colleges shall require the same subjects for admission, but it does demand that, when a college requires a particular subject, its requirement in that subject shall not be materially different from the requirements of other colleges in the same subject. We of the schools insist that one class in any subject should be able to prepare its members equally well for all colleges requiring that subject. This appears to be a reasonable proposition, and the intellectual acceptance of it is now quite general on the part of the colleges, though there are still some that are unwilling to sacrifice that precious possession which they call their "individuality." But, if the principle of uniformity is generally accepted as a sound proposition, much

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is yet left to be desired in its application. There has been a distinct gain in the last eight years, but the goal has not yet been reached, and we see no immediate danger of that dead level of monotony that some appear to fear. For instance, we have a uniform entrance requirement in English, but a study of the English papers set in various colleges shows that there is no uniform interpretation of that requirement. Harvard maintains a set of requirements distinctly at variance with those of other institutions, and among other colleges there is a diversity in details that is at times disheartening.

I admit the difficulty of the case. The principle is not always easy of application in detail. If several colleges differ in regard to any requirement, to which one shall the others conform? It is a case for sinking of individual preference, for cooperation, for united action. The College Entrance Examination Board now offers what many of us believe to be a practical solution of the difficulty, and the growth of its work in the last two years indicates that this belief is well founded. I am not now arguing, however, for the examination board, or for any particular plan. I am simply trying to show that the desired uniformity of entrance requirements has not yet been fully attained, and can be fully attained only by the cooperation and united action of the colleges and schools of the country.

The second problem that concerns college and school alike is that of options in entrance requirements. There was a time when the question was, "Shall there be any option at all?" Two of the oldest and largest colleges in the East still allow, in their academic departments, no option whatever, except a choice between French and German, so that the question still exists in its old form. With a few exceptions like these, however, the principle of choice has been admitted, and the question has now become, "How far? To what extent shall options be allowed?" Is the true position that of Yale and Princeton, which insist on Greek as an absolute essential? Is it that of the colleges which hold to the Latin and mathematics, but allow a choice between Greek and modern subjects? Are Columbia and Cornell right in opening the door to students without either Latin or Greek?

Or shall we go still farther, and throw in our lot with that Western university of which it has been said that a man "may select his own entrance requirements, choose his own studies when admitted, remain as long as he likes, and pick his own degree when he decides to graduate"? It is beyond all question, I think, that there is an imperative demand for some freedom of choice, a demand to which even the most conservative must yield, but there is a serious question whether that freedom of choice may not be, and has not been, in some instances, carried too far. The problem is not a simple one; it is entangled with that of the elective system in school and college, and it is complicated by the chaotic condition of college and school courses throughout the country. It is not a dead issue, though some institutions seem to think that they have settled it. It is a live problem and one that should be solved by the joint wisdom and experience of secondary and higher institutions.

A third problem of joint interest is that of the method of admission to college — shall it be by certificate of the school or shall it be by examination? Or, is there possible a combination of the two methods, by which the school shall certify as to the ground covered, and the college shall give a modified examination, designed to test thoroughness and power? The question has been discussed before you today, and I content myself, therefore, with simply stating it as one of the still unsettled problems.

There is only one other problem that I shall mention, but that is one that has not yet received the general attention and consideration that it deserves. This is the question as to the amount of work that shall be required for admission to college. It is not easy to make a general statement on this point, because the requirements of different colleges vary as much quantitatively as they do qualitatively. For instance, it is not an exaggeration to say that there is nearly if not quite a year's difference in the work called for by reputable colleges of good standing in New England and the Middle states. Still, in spite of this difference it is possible to generalize with some accuracy, for the work of college preparation is largely conditioned by the higher requirements.

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One fact appears to be generally admitted. That is that the age of college entrance is now too high. We are told that the responsibility for this rests with the schools, partly with the secondary schools because of improper economy of effort, partly with the elementary schools because of not sending up pupils early enough or well enough prepared. Unquestionably there is an element of truth in this charge, but careful study has convinced me, and I am prepared to maintain the position, that it is at best only a half truth, and that a large share of the responsibility for the existing state of affairs rests with the colleges, which have forced their requirements to an unreasonable point. We have to deal with boys and girls as the good Lord made them, or rather as their parents brought them into the world, for many of their limitations and shortcomings should be ascribed to their parents, rather than to the Lord. We are not dealing with ideal or exceptional, but with actual and average pupils, if there is such a thing as an average boy or girl. Every school of any size has sent to college pupils of 16 or under, and these have probably been among their best graduates, but in those same schools the average age is up to the normal, and every one of them is constantly dealing with pupils who are either physically or mentally too immature to meet the college requirements at 17, or even at 18. The fact is that the average pupil has too many subjects, and too much of each subject, for his mental digestion. The work would be better done, and the pupil would be better prepared for college, if the demands were less. In the best public and private preparatory schools there is a constant pressure that does not conduce to the best educational results. I once expressed surprise to a high school teacher at the amount of work accomplished in the last year of his college preparatory course. His reply was significant. "You forget," said he, "that by our last year we have only the cream of the class left." The number of those in some of our high grade schools who are unable to stand the pace is simply appalling, and college preparation in those schools has become largely a matter of survival of the toughest. The sacrifice is beyond all reason. Now, I submit that where there is such pressure, and such sacrifice, there is something

wrong. Granting that both our elementary and secondary courses are capable of improvement, is the college free from responsibility if, under existing conditions, it makes demands that can be met only by undue pressure or by forcing up the age of entrance? Possibly I have stated the matter too strongly, but I submit that here is a question calling for the closest attention. and for the most searching investigation, and that is distinctly one of the joint problems of school and college.

I have tried to show how much has already been accomplished in securing better relations between our schools and colleges, and at the same time I have tried to point out how much still remains to be achieved. I have tried to indicate some of the problems that are to be solved, and to show that they can be adequately settled only by joint action of the two parties concerned. I plead for closer relations and for heartier cooperation between school and college. I plead for the interest of each in the peculiar problems of the other. I plead for the laying aside of individual preference, of class feeling, of institutional rivalry, and for a union of all our forces to solve the problems that press on us. I make the plea on the ground of the immense importance of the questions involved, and on the broader ground of the unity of education, of hastening the time when the education of the boy and the girl shall be one continuous process from the first day of school life to the awarding of the last degree. I make the plea in no spirit of pessimism or of despair, but, with a full appreciation of what has already been achieved, I urge the laying aside of everything that may retard the present movement, and the union of all our forces to speed the work so auspiciously begun.

Saturday morning, November 29

HOW SHOULD THE ENTRANCE EXAMINATION PAPER IN HISTORY BE CONSTRUCTED?

PROFESSOR LUCY M. SALMON, VASSAR COLLEGE, CHAIRMAN OF THE
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A homely old adage runs, "Any fool can ask questions it takes a wise man to answer." It would perhaps be unreasonable to give as its converse, "A wise man is needed to ask questions a fool can answer"; yet it is not far from the truth to say that

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the phrase in this form is more in harmony with present educational conditions than is the original saying. Every conscientious instructor knows that one of his most difficult tasks is the preparation of examination questions, and that there are times when he is tempted to think that the results of an examination as shown in the papers of his students are far from commensurate with the efforts he has himself put forth to prepare a reasonable set of questions.

The difficulties inherent in making out an examination paper are enhanced by the diversity of opinions as to the purpose of examinations. Among the too numerous survivals of the birch rod period of education is the view held of them by probably the majority of students. In their eyes examinations are a species of intellectual torture invented by their natural foes—their instructors, who take fiendish delight when its application has resulted in the overthrow of the innocents. This view of examinations has been handed down by tradition, it has often been fostered by the unreasonable attitude of many instructors themselves, and it flourishes in full vigor everywhere among the student body.

Even among instructors two diametrically opposite views prevail. One class holds that examinations are a test of what the pupil actually knows or does not know, and that the pupil is to stand or fall by the application of this test; that they are to be used as an intellectual ferule to be held over the heads of the pupils; that they are a desirable means of facilitating what has been called “the corkscrew process of extracting information”; that they have the same relation to the scheme of education that the dogma of eternal punishment has in a system of theology, and that they are designed as a punishment for sins of omission committed by the idle, the lazy, the unwary, the indifferent, the mischievous, the stupid, the ignorant, the wilful, the disobedient—and in the eyes of the teachers holding these views the great majority of pupils are to be classed under one or all of these heads.

Another class of instructors holds that examinations are an indispensable part of education; that as the review sums up and

clinches the daily work, so the examination sums up and clinches the review, and thus brings to a focus the work of an entire semester or year; that, as the ascent of a mountain is best made by a winding road that constantly doubles on itself till the summit is reached, so the review doubles on the daily work till the survey of the whole field is presented through the examination; that thus the examination should be anticipated with the same keen zest as the traveler anticipates the view from the summit of the mountain; or, to change the figure, that, as a person who has had a course of lectures on "first aid to the injured" but can not apply what he has learned to cases of accident has gained nothing by such a study, so the examination is not only a test of knowledge but a test of the person's ability to use knowledge.

It was with the latter theory of the nature and purpose of examinations that the examiners began the preparation of the entrance examination paper in history. It may aid the elucidation of the subject to state somewhat in detail just what was done.

As soon as the examiners were selected, entrance question papers in history were secured from all the leading colleges and universities in the country, and these were carefully examined. The examiners then met and agreed on a general plan to be followed in preparing the papers for the College Entrance Board. It was decided that each examiner should prepare a set of questions for each part of the examination in history, since it was believed that the final paper should have an organic unity that could not be secured if parts of it were farmed out among the three examiners. The examiners subsequently met, and in three conferences, averaging four hours each, every question was critically examined, and the papers as a whole provisionally passed on. The resulting papers were then gone over by the chief examiner, and every question was tested by reference to the textbooks most generally used. Every one was thrown out or modified that could not be answered by a pupil who had used these books, except in a few instances where timeliness or other reasons led to the retention of certain questions as options in groups. The

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question on Alfred the Great, for example, could not have been well answered by a pupil who had used the ordinary textbook, but it was retained as an option with the thought that many schools had doubtless given special attention to the subject during the preceding year, and that such special timely work should be encouraged. After this revision, the papers were submitted to the coexaminers, and final criticisms asked. The papers were again revised and submitted to the board of chief examiners in New York city, and the criticisms and suggestions there received were embodied in the final copy sent to the secretary of the board.

In the preparation of the questions the second year, the examiners were able to avail themselves of the experience of the readers of the first year, and this was an invaluable aid. At the close of the examinations of the first year, the chief reader, Prof. Frederick Robertson Jones, submitted an elaborate report in regard to the questions and the resulting answers, and this was supplemented by an exhaustive personal letter sent the chief examiner by Mr W. H. Shepard, one of the coreaders. This criticism was of the greatest service in the preparation of the questions for the current year. In a similar way, the present year, Professor Jones has placed on file for the benefit of future examiners an exhaustive report of 80 manuscript pages, accompanied by the very detailed reports of the coreaders, Dr Shotwell of Columbia, and Mr Robins of Riverview Academy. It may well be questioned whether any set of history papers ever prepared in this country has been given so microscopic an examination, and subjected to so thorough, searching and analytic a criticism. Could the results of the experiences of the readers be given the teachers in the secondary schools, the benefits should be as great and as many as they undoubtedly will prove to be for future examiners.

This detailed statement of the way in which the history paper has been prepared has been given, not to invite the laconic observation of the editor to a writer who had expatiated on the pains he had taken with his ms — that what the proffered article lacked was not perspiration but inspiration, but to indicate that the examiners have at least used all possible care in the preparation

of the paper, that they have believed that the result of their work should be organic in character, and that each examiner should be ready to explain the principles that determined the incorporation of every question in the final paper.

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What have been these principles? They may be stated first negatively. The examiners have sought to avoid:

1 Questions that are not questions, e. g. "Julius Caesar," "The second triumvirate," etc.

2 Questions that can be answered by simply "yes" or "no"; e. g. "Has the legendary history of Rome any value?"

3 Questions implying the answer; e. g. those ending "If so, why?"

4 Questions that may be answered by a fortunate guess or the answer to which seems comparatively unimportant; e. g. "When did the Reign of Terror end?"

5 Indefiniteness; e. g. "Give some, etc.," "Discuss a few, etc.," "Mention the chief, etc."

6 Questions involving unrelated points; e. g. "Give the political life of Alfred the Great. Give the important provisions of Magna Charta."

7 Generalizations involving a premature judgment based on an insufficient command of facts; e. g. "The effects of Alexander's conquests on civilization."

8 Generalizations beyond the probable reasoning powers of the candidate; e. g. "Give your estimate of Athenian democracy."

9 Questions encouraging on the part of the candidates undue confidence in their own judgment; e. g. "What are the possible annexations to the territory of the United States? Do you regard the acquisitions of any of these possessions as desirable?"

10 Questions that are not primarily historical; e. g. "What is the philosophic basis of asceticism?"

11 Questions that, however admirable for an oral quiz, seem less desirable for a written examination; e. g. "Name five cities occupied by the British during the Revolution. Name five British generals. Name five American generals, etc."

12 Dragnet questions; e. g. "Write a page on what you know about the history of your own state."

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All of these questions are concrete examples and have been taken from the entrance examination papers of different colleges and universities. They are the questions we have all written at the close of the college year when every hour has seemed to carry a first and a second mortgage, and when we have been tempted to close our sets of papers with the time honored questions, "Who immortalized some spot in Italy?" and "Who chased whom how many times around the walls of what?"

In a word, the examiners sought to avoid on one hand the centrifugal force that tends toward a multiplicity of questions of detail which no secondary school pupil could be or should be expected to know, and on the other hand to avoid the centripetal force that tends toward broad, meaningless, unsupported generalizations; they have sought the perfect circle, but they realize far more than any one else the angles and tangents of the resulting product.

But the negative pole of the battery must find its complement in the positive pole; and, though the examiners might plead with Portia that they could easier teach 20 what were good to be done, than be one of the 20 to follow their own teaching, they felt that it was necessary to state in a positive as well as a negative way the principles that should govern an examination paper.

Stated on the positive side, therefore, the examiners have considered it the purpose of the examination:

1 To ascertain what definite information the candidates have on undisputed historical questions.

2 To test the ability of the candidates to deduce conclusions from facts.

3 To test the knowledge of the candidates of the facts on which their own generalizations or those of others are based.

4 To test the candidates in regard to their powers of observation, analysis, imagination, reasoning and judgment as shown in their work in history.

5 To connect as far as possible the history of one country with that of another.

6 To connect as far as possible the work in history with the work in other subjects.

7 To emphasize at every point the idea of the continuity of history.

8 To give the fullest possible latitude to the candidates to show what interest they have taken in their work during the time they have been preparing for college.

9 To reduce to a minimum the opportunities for passing the examination through cramming for it.

To attain these results, two methods of examination presented themselves — the first, to arrange sets of questions that should follow out the chronological development of history; the second, to violate chronological sequence in order to secure certain tests otherwise impossible. The advantages of the topical method of examination seemed to outweigh those of the purely chronological arrangement, and the questions were therefore made out according to this plan, but the chronological order was, as a rule, observed within groups of questions, though in some cases the arrangement of a series of questions was alphabetic.

The matter in regard to which questions were to be asked was in general classified under the heads of art, bibliography, biography, commerce, geography, legislation, literature, manufactures, politics, religion, war, and various similar headings.

The attempt was made so to frame the questions on these subjects as to test the candidates in accuracy and definiteness of statement, their ability to make comparisons, to draw conclusions, and to form judgments; their knowledge of the historic origin of current phrases and their understanding of allusions in literature to historic events; and in other, kindred ways to show that they have a certain definite knowledge of historic facts, that the acquiring of this knowledge has given them a certain amount of mental training, and that they are able to apply both this knowledge and this training to other subjects.

The examiners also believed that to a limited extent processes should be considered; and therefore a few groups of questions were prepared under the headings: outlines, narration, description, quotations etc. The current year, while the same idea has been maintained, it has been made less prominent in the headings; for example, all the quotations in Roman history were

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placed under the heading "The Romans and the Germans"; and, as these quotations were selected from four different periods when the two peoples came in contact with each other, they thus indicated an outline history of the topic.

This was the educational creed adopted and in accordance with which the history papers for two years have been made out. That the task set the examiners was no light one, no one understood better than the examiners themselves. The questions were expected to satisfy the colleges that were giving up their own examinations, to satisfy the schools that had prepared the candidates, to satisfy the candidates themselves, to satisfy the parents of the candidates, to satisfy the College Entrance Board, to satisfy the Board of Chief Examiners, to satisfy the readers, and finally the most difficult of all, to satisfy the examiners themselves.

The papers have not escaped criticism; it was not only expected that they would not do so, but criticism from every possible quarter has been sought by the examiners and by the secretary of the board. Much, therefore, has come to the knowledge of the examiners. Some of the criticisms of the papers have been flippant; some have been based on an erroneous idea as to the purpose of an examination; some have come from teachers whose pupils have signally failed to pass the examination; others have emanated from superintendents and principals who have assigned the work in history in their schools to the teacher of science, or to the teacher of gymnastics, or to the teacher of drawing, painting and biology; some have come from college professors who "have never set that kind of a paper"; still others have come from colleges whose past conception of history is perhaps indicated by the abstract from the catalogue for 1900-1 of a large university, apropos of entrance examinations in history: "Students are urged, instead of verbally memorizing any one textbook, to supplement a careful reading of the text by as wide a range of connected reading as their circumstances will permit." All objections coming from such sources may be dismissed as the vagaries of incompetent and prejudiced minds.

But honest, serious questions have been asked, and criticisms

have been offered, by those to whose sound judgment the examiners have always deferred, and these criticisms and objections must be frankly met and, if possible, answered.

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What are the objections to be seriously considered? The first concerns the question of options. It has been urged against options that they are confusing, that the candidate wastes time in reading them, and that the test is not the same for all where choice is given.

It must be said, in support of the principle of options adopted by the examiners, that it seems practically impossible to ask the same questions without options when those taking the examinations have been prepared in hundreds of different schools, by hundreds of different teachers all over the country. We have no rigid system of education; each school is practically a law unto itself as regards curriculum and textbooks. As long as this flexibility everywhere prevails, it is necessary to have a corresponding flexibility in the questions set. Pupils prepared in different schools, by different teachers, studying different textbooks, reading different collateral references, must have a choice of questions in a subject having so wide a range of interests as that denominated history.

Second, it is urged, and the objection is presented with great force and clearness by Professor Jones, that all the questions within groups should be perfectly balanced, that, if this is not done, the candidates will answer on the line of least resistance, and the more difficult questions in the group could thus better be left out; that a group of questions is just as strong as the weakest of the subquestions within the group; that, if a group of these options contains two hard questions and one easy one, the two strong questions are mere ornaments and mislead others into believing that the group of questions is a fairly difficult one; that it would be far better to offer no choice at all than to offer one between one easy question and two difficult ones in the same group.

There is much force in this reasoning; yet it must be said on the other hand that, desirable as is a perfect balancing of groups and of subquestions within a group, it is not necessary to the

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success of an examination that this absolute balance be maintained. It is true that the majority of candidates will answer the easiest question within a group; but it is also probably true that more students are graduated from college on a percentage of 75 than of 95. It is true that pupils will follow the line of least resistance; but no college or school requires that its students or pupils attain a uniform percentage for graduation — some colleges graduate their students on all percentages from 60 to 100, others grant the degree on percentages varying from 75 to 100. It is true that a chain is as strong as its weakest link, but, if the weakest link does not give way, the chain holds. It must also be remembered that the balancing of questions within groups has two aspects. The readers naturally desire to have the questions properly balance, while the examiners desire rather to have the questions balance — they wish to approach one idea from different sides, to develop a certain subject, to look at a question from several points of view. Thus the group of questions on the English, Spanish and French colonization of America was, from the reader's point of view, a poor one because one half of the candidates answered the question on the pre-Columbian discoveries, and only one fourth attempted that on the French explorations. From the examiners' point of view the questions were well balanced, since they suggested three different classes of early explorers.

Third, the criticism is made that on the papers certain great fields of history have been passed over, for example, that the American history paper of 1901 had no question on exploration and discovery, that the English history paper of 1902 omitted questions relating to internal history, that questions on bibliography have not been asked, etc.

It may be said in reply to this objection, that the field of history is so broad that it is impossible to cover even one section of it, as ancient history, in a series of 10 questions. A selection of questions to be asked must be made by the examiners as well as a selection of questions to be answered by the candidates. Moreover, if the same groups are asked every year, the papers soon become stereotyped, and the examination

perishes of dry rot. Something too must be done to counteract the impression that only those topics are to be taught and studied that will probably be called for on the examination.

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Fourth, it is urged, and specially by one of the readers of 1901, that questions on biography, and to a certain extent those calling for facts illustrating given quotations, are, in general, useless, since the answers to such questions are replete alike with "gassing" and "guessing"; that, while the answers may have revealed a wondrous imaginative temperament, the historical knowledge shown was scant.

It may be said in reply that, granting that the questions were not well answered, the fault may not have lain altogether with the questions — a part of the responsibility rests with the teachers and with the candidates. There is certainly opportunity for indefiniteness, vagueness, guessing and various other characteristics little to be desired in answers to definite questions, if pupils have had no training in answering questions of that kind. But biography enters so largely into history that it can not be ignored, and every year more and more attention is paid in the schools to the study of the undisputed facts in the lives of great men, and there is a corresponding decrease in the number of the crude generalizations in regard to character and motives that once filled our textbooks.

Fifth, objection has been raised to questions calling for comparison on the ground that secondary school pupils do not understand the term and are unfamiliar with the processes of thought involved in comparison; that they usually give an account of one of the parts called for by the comparison, followed by a similar account of the other part, but make no attempt to point out features of similarity or of dissimilarity; that the comparisons attempted are usually ridiculous; that they afford the pupil an excellent opportunity of running riot, and that he usually accepts the opportunity; that "he will frequently write several pages of the veriest rot and go away with a self-satisfied feeling of having gotten at least that question right."

To this it must be said that the fault again perhaps does not lie so much with the questions as with the training of the can-

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didates. That training in comparison is desirable will perhaps be generally admitted; many historians from Plutarch to Bryce have used most effectively this method of making vivid the evolution of the present from the past. Professor Gildersleeve's comparison of the Greeks and the Americans is remembered by all as a classic. Mr Bryce's more recent comparisons of certain phases of Roman and British rule are among the most subtle and profound of modern historical studies. If the younger generation is to continue this work, training for it must be given.

But entirely apart from the value of comparison in the training of historians, a number infinitesimally small in comparison with the total number of pupils studying history, it must be generally admitted that comparison in and of itself is a valuable exercise. To find points of contact, to discover resemblances and differences, to find a common origin in conditions seemingly diverse, to study relations, to do all this is to give definiteness and clearness of thought. "We can never understand anything well but by comparing it with something else," says James Freeman Clarke, while Huxley calls comparison "the essence of every science."

It seems therefore unwise to give up all efforts to draw out comparisons through questions, even though the results obtained are as yet crude and unsatisfactory. Better teaching and better textbooks will remedy the evil, and it seems unwise to abandon the field to the poor teacher, to the inferior textbook and to the resulting ill prepared pupil, by withdrawing altogether this group of questions.

Sixth, it is said that pupils can not, at least do not, distinguish between question groups headed "outline," "narration" and "description"; that these questions are practically answered in the same way, and that the answers are prolix, verbose and meaningless.

This is undoubtedly true; but here again it may be said that defective training in English, rather than the questions, is in a measure responsible for the unsatisfactory results. Improvement in work in English ought to show good results all along

the line. On the other hand, it will undoubtedly be wise to emphasize these classifications less and less each year.

Seventh, objection has been raised to the plan of asking questions that should connect the work done in history with that done in other subjects, as in Latin, Greek or English; that, as one head master of a great school has put it, "no boy wants to be hung twice from the same tree."

This objection, one can but feel, indicates a shortsighted, erroneous conception of education on the part of those raising it. "The unification of knowledge is the very secret and essence of all education, from its lowest to its highest forms," says Prof. James Seth of Edinburgh. The intellectual awakening of many a boy or young man dates from the hour when he first realizes that Caesar's *Commentaries* were not written for the purpose of teaching indirect discourse, that French is but a tool to be used in the study of many subjects, and that history is written in Greek and in German as well as in English. It was therefore deep conviction of its value as an educational principle that led the examiners to attempt to connect history with other subjects and to connect different periods of history with each other in order to show the continuity of history itself.

These are the most important objections raised to the questions as far as knowledge of them has reached the examiners. That future examiners will be able to profit much by them is certain.

The task of the examiners and of the readers in history, onerous as it has been, has had its compensations. What the examiners have themselves learned of history through the questions and through the suggestions of friendly critics, like Prof. G. L. Burr of Cornell, has been an interesting by-product, perhaps not contemplated when the appointments were made by the central board. The diversion found by the readers was in turn not anticipated by the examiners when they asked the questions that called forth the information, that the "omnibus bill provided that negroes were to ride in omnibuses on the same footing as whites"; that "the omnibus bill was the bill into which all those things which were needed at the time

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were put"; that "the Mason and Dixon line was the line north of which corn whiskey could not be sold"; that "the free-soilers were land-grabbers. They were Democrats who believed in giving Mexico all she wanted. The outcome showed the true American spirit — we are bound to have what we want."

If one of the examiners in history believes heartily in the admission of students to college by examination, if another believes in the certificate system, and if a third believes in admission to college neither by examination nor by certificate, but by the system of accredited schools, then the preparation of questions for admission to college by examination has, for the majority of the examiners in history, been indeed a case of greatness thrust on them. In any event, they have believed that the office of examiner is one held in trust to this body, and they have welcomed this opportunity of giving an account of their stewardship.

Dr James Sullivan — There are six persons concerned in the making of the college entrance examination paper in history. These are, on the college side, the examiner, the reader, and the president of the college; and on the side of the school, the teacher, the pupil, and the head of the school.

It sometimes happens that the examiner is one of the youngest instructors in the college, with little or no experience in framing questions; and, where the burden of making the examination falls on one of the older members of the history department, there is possibly too little attention paid to getting thoroughly good and suitable questions. It does not follow that, because a man is a great scholar, he is a good examiner. In fact, one of the greatest scholars in Oxford is the very poorest examiner.

The readers are frequently the youngest instructors, and in many cases are graduate students, whom a money consideration, and not an interest in the subject, draws to the work. This, however, is not such a serious defect, if the work is thoroughly supervised by an older member of the department. It is much to be regretted that sometimes the head of the department or the president of the college feels the need of setting some percentage of failures which should not be exceeded, or, if not actually

doing this, at least makes the readers feel that they have rejected too many candidates. The standard of teaching in the secondary school will never be raised while such methods are pursued.

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The teachers in the secondary schools are naturally anxious to see as many as possible of their pupils pass the examination. No matter how good the teacher, he is bound to degenerate into a mere crammer if the aim of his teaching is to get his pupils through the examinations as now set.

The principals of preparatory schools are interested in seeing a large number of their pupils enter college, and their judgment of a teacher's work is influenced by the number of candidates who pass the examination. Some principals figure out the percentages of passes and failures in their schools and compare them with those attained by other schools. The teacher who is not successful in getting a large number of his boys through, no matter how good he may be in imparting information in a way to develop the powers of judgment and reason, will certainly not be retained by the head of the school. The candidate for entrance wants to get through his examination, and he does not wish to gain any training which may develop general ability, but which does not fill him with the necessary facts by drill and reviews to enable him to pass.

The question of the advisability or nonadvisability of the examination system does not enter here. I believe that examinations can be set which will reduce cramming to a minimum, and by the results of which teaching may be judged. By the results of examinations as now set, however, I do not think this is possible.

The committee appointed by various associations since 1892 have realized that there is some serious defect in the teaching of history. In the reports of the Madison conference in 1892, the committee of seven and the New England History Teachers Association, the most important portions are those on the use of history in developing the powers of judgment and reason. One might naturally expect, that as these committees were made up largely of college instructors, the entrance examinations would show the effect of their recommendations and would contain an

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increasingly larger proportion of questions testing the judgment and reason.

For the purpose of determining whether such were the case or not, I have examined the entrance papers in history since 1893 from 13 colleges in different parts of this country. The questions on these papers may be grouped under the following 11 heads: (1) purely memory; (2) geographic catalogue; (3) date catalogue; (4) term catalogue; (5) comparative; (6) judgment and reason; (7) geography and chronology of the new type; (8) outside reading, optional; (9) outside reading, required; (10) notebook; (11) preparation. Of these only a few require definition. By geographic catalogue is understood a list of places to "locate and tell for what noted;" date catalogue — a list of dates, "tell for what noted;" term catalogue — a list of terms to define. By geography and chronology questions of the new type is meant those questions which bring out a knowledge of geography and chronology in connection with larger questions.

Most of the headings can be disposed of very rapidly. The date catalogue has fortunately almost entirely disappeared. Of about 200 papers which I examined it appeared on three only, but those, curiously enough, were of very recent date. The evils of such a form of question are too obvious to need comment. Optional questions on outside reading appeared on the Harvard papers till 1898, when they were dropped. Beginning with 1900, such questions have appeared on the papers of several of the colleges, and on those of the Examination Board of the Middle States and Maryland. Notebooks have not been called for except at Harvard, and there only since 1900. The geographic catalogue still finds almost universal favor, one question of this kind generally finding a place on the papers of each of the colleges, and the same may be said of the term catalogue. Fortunately the geography and chronology questions of the new type are finding favor, and we may hope to see them supplant altogether the older geographic and chronologic catalogues. The use of comparative questions and those testing the judgment and reason is not at all general, though

most of the colleges have put such on their papers occasionally. The type of question generally used, and used to the exclusion of almost all others, is that which we have designated as the purely memory question. Since the reports of the various committees mentioned above, there has been no observable decrease in questions of this sort. They usually form about 90% of each paper, seldom less than 75%, and often 100%. For this preponderance of the purely memory question there is absolutely no excuse. The colleges have preached one thing and practised another. We all know that it is easier for examiners to find questions testing the memory only than it is to work out good comparative questions and those testing the judgment and reason. The colleges have usually chosen the easier method. Such action on their part can not be too severely condemned.

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It may be urged that all questions are memory questions. That is true enough, but they need not be purely memory. In other words, the candidate may always be required to show his ability, by using the facts which he has learned, to make comparisons and to exercise his judgment and reason. Committees made up largely of college men tell us that history is not a purely memory subject, but that it trains the observation, the judgment and reason; and yet no one would ever know that history was anything but a memory subject, were he to confine his researches to glancing over the college entrance papers of today.

It must be confessed that many teachers in the secondary schools do not wish to see anything but the purely memory questions. These permit of cramming, and that is the kind of teaching they want to do. Poor teachers can cram pupils as well as good teachers, but they can not train the observation, the judgment and the reason half as well. That is a reason for dropping the purely memory question as much as possible from the college paper, for such action will reduce cramming to a minimum, and make necessary an improved standard for history teachers.

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Poor questions, supposed to test ability to make comparisons and to test the judgment and reason, have been set, but this is no cause for a condemnation of good questions of this kind. I feel that a question which calls for the comparison of two great men finds no place on the entrance paper. Some good examples may be found, such as "Compare Blaine with Clay," but in general answers to such questions amount to nothing more than mere word writing, if they amount to that.

There are other faults in the papers even of the last two years besides that of the great preponderance of the purely memory question. There is the stereotyped form of printing the paper. If there is any good reason for not changing the form every year, it has escaped my attention. The geographic catalogue is still present, where it should have been abandoned long ago. Questions of this sort lead the teacher to coach the candidates to memorize stereotyped answers describing the location of a place and giving an important fact about it, while the pupil remains entirely ignorant of its true geographic position on the map, and its real importance in history. The term catalogue is not so bad, but it leads to a similar treatment by the teacher, and, with such treatment, history becomes for the pupil a dictionary of terms and places without any unity.

Some general faults of examinations without regard to any particular kind of question may be summed up as follows. As a rule the examinations are too long, one extreme case having 25 questions to be answered in an hour. Examinations of this sort encourage short answers, and do not lead the teachers to train their pupils to write or to recite at length on any one topic. This extreme length of examinations seems to be due to a feeling on the part of the examiners that their examinations must touch on every point covered by a textbook, or that by giving many questions they may enable the weak candidates to pass.

Questions frequently suggest too much, the following being a common form and good example: "Marius and the Invasion of the Cimbri and Teutones. What successful experiences in warfare had given Marius and his army confidence? What had the invaders done to terrify Italy? Plan of the invasion; tactics and

counterplan of Marius; the victory at Aquae Sextiae; at Ver-
cellae; what became of the German invaders? When were they
avenged?"

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We note the same questions occurring again and again in exactly the same words. There seems to be a decided paucity of invention on the part of the examiners in this respect, for, though it is necessary to examine on the same topics, there is no good reason why the phrasing of questions should not be changed. It seems that the examiners, instead of trying to find new questions or new phraseology, content themselves with reproducing at intervals questions which they find on old papers.

It would scarcely be to the point to find so many faults without making some suggestions for improvement. Geographical and chronologic questions should form a part of some larger question. For instance: Trace the career of Hannibal during the Second Punic War, giving the important dates, and locating on the map the places you mention. There should be more questions concerning the effect of environment on the development of peoples. The term catalogue should be used with discretion, and few terms put in one question. This would give the candidate time to explain at some length the terms asked for. As the questions are given now, the candidate has barely time to jot down: *Helicaea*—Popular supreme court at Athens; *Magna Charta*—Document issued by John. Such answers are vicious, because they encourage the student to try to retain only enough about a term or institution to enable him to give a brief definition and no more. Crowding the different terms into one question is due to the same feeling on the part of the examiners which makes them give 25 questions to be answered in an hour. They seem to feel that they are not testing a candidate's knowledge unless they touch every conceivable point. As a matter of fact, one term, "*apella*" or "*ecclesia*," will test whether a candidate has done his work well or not.

In line with this same recommendation about the term question is another about the number of questions an hour which a candidate should be called on to answer. Candidates properly prepared should be able to write 20 minutes or longer on a given question and should not find it necessary to have leading steps

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put in the question in order to draw out their information. Suppose, for example, a question reads: "The Second Punic War." A poorly prepared candidate will be at an absolute loss to do much of anything with it, and his poor grade will be his teacher's fault. The pupil should be taught to consider such questions in general under the headings of causes, events and results. It is not the business of the examiners to specify all these things. Further, under the head of each of these divisions, the pupil should be taught to make groups of such headings as political, commercial, military, economic, social, religious. Such groupings, and not events, should be indelibly impressed on the pupil's memory. Any question, no matter of what sort, has its divisions; and pupils should be so taught that, when they are asked for the life of a great man, or the description of some government, they will be able to outline the question in its essential parts and not feel the necessity of having a score of subsidiary questions to bring out their knowledge.

As long as the examiners put their questions with helps for the candidate in the form of numerous side questions, just so long will teachers fail to prepare their pupils to write fully and connectedly on any topic.

The examiners themselves are not always competent, and more attention should be paid by the colleges to their selection. They should be thoroughly familiar with all the good texts used in the schools, and see to it that questions on the examination papers can be answered from those texts. A cooperation between the examiners and the teachers of the secondary schools is highly advisable. As a suggestion, I would ask the examiners to send to the history teachers of the secondary schools requests for questions which they think suitable for the examination papers, and further, that, as far as practicable, the readers of the examination papers be chosen from the secondary school teachers. If this plan were followed, it would form a happy medium between the examination system as it now exists and the accrediting system. We should have examinations set and read by the secondary school teachers under the supervision of the colleges.

Good questions occur to most of us which never appear on the examinations; and I am sure the teachers would be only too glad to send them to the colleges. As examples I submit the following:

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Compare the grievances of a provincial town under the Roman republic with those of a member of the Delian League.

Compare the strong and weak points in the education of a Roman and an Athenian gentleman.

Contrast the relative advantages of Sicily with the coasts of the Black sea as fields for Greek colonization.

Describe in detail the origin and growth of the elements of the feudal system, and show why the system came into existence and why it died out.

Give an account of the steps in the Reformation taken during Elizabeth's reign, and make clear why it was that she supported protestantism, when she is known to have had leanings toward catholicism.

Describe fully the condition of the people at the North and at the South before the Civil War, and account for their decided differences, when in 1620 they were of the same people and from the same country.

By the use of questions like these, and the insertion of the words "in detail," "at length" and "fully," the examiners will go far toward reducing cramming to a minimum and making possible the statement, which we should all like to hear, that "good teaching may be judged by the results of college entrance examinations."

DISCUSSION

Professor Edward P. Cheyney — I understand my duty to be to call attention to the deficiencies, not to the excellences of the paper which makes the subject of your discussion and of the entrance examination papers which that paper defends. It would be easy to fill my allotted 10 minutes with very sincere expressions of approval of the work of Miss Salmon and her committee. We all owe to her and them a debt of gratitude for their formulation of the problem and of principles, their analysis of conditions, and their suggestive questions. Similarly, I could second many of Dr Sullivan's judicious criticisms and suggestions for

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much needed improvements. This I wish to acknowledge once for all and disavow any lack of appreciation of the work of the committee and the suggestions of Dr Sullivan. But I am to call attention to those points in which they do not seem to me to have either acted wisely or criticized sufficiently incisively.

My fundamental criticism may be expressed in one word, overrefinement, or perhaps better, overelaboration. In the first place, the papers made out by the committee and defended by Miss Salmon undertake too much. They should not be expected to serve as part of a student's education in history. There are plenty of other opportunities for this, and the circumstances of entrance examinations are not favorable to it. It is no part of the functions of an examiner in history to test the general reasoning powers of a student; to train his general powers of observation and analysis; to try to correlate his knowledge of history with that of other subjects. This is too ambitious a program for two and a half hours in a strange place, under adverse conditions, and with an ulterior object overshadowing all others. Entrance examinations in history must always play a somewhat humble role. They can only be a rough estimate of a student's ability. History is not like mathematics or a language, where an answer is either right or wrong. The question is, how far right, how far wrong? It is a matter of degree of excellence. Again, students can not be expected to have all their historical acquisitions available at any one time. What they have gotten from its study is represented rather in their mental fiber and moral attitude than in their stock of available facts.

An entrance examination in history can at best prove but one thing; that is, whether the pupil has had an intelligent course of teaching and study in the field of history under examination.

A rigid and intelligent reading of his answers is of course required. The examiner should not pass any paper which does not give evidence of intelligent past study on the part of the student; but he should not refuse any which does give it.

Secondly, the papers prepared by the committee are overelaborate because they classify too much. Too much of the skeleton of the paper shows. It is undesirable to divide history into

subsubjects; narration, geography, biography, political development, material development etc. Miss Salmon enumerates "art, biography, commerce, geography, legislation, literature, manufactures, politics, religion, and war." If treated in this way, both teachers and students are apt to get the idea that history is a compound subject made up of many separate subjects, a certain amount of each of which must be learned. History is really one and should be so treated. The papers should be more simple.

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Thirdly, the papers are overelaborate because they tend to drop into stereotyped forms. It must be remembered that papers must be made out every year and year after year. If the questions are to be made out according to a set system, that system will inevitably react on the secondary schools and tend to a stereotyped method of teaching.

This is highly undesirable. In the last analysis, the greatest need in order to get good entrance examinations in history is to get good teachers of history in the schools. Let us not dictate to these teachers too much; not belittle their office; not discourage their experimenting. History teaching in the schools is their problem, not ours. Let them work it out in their own way, with their own lessons of experience and their own rewards for success. A stereotyped examination paper is an interference with this process.

I believe that on the whole it would be better if school teachers and their pupils would forget all about college and college entrance examinations, and bend all their energies to making a good study of the subject for its own sake, without any ulterior object in view. When pupils in school are studying history, the best school course will also be the best college preparatory course. College examiners must not lay down too close directions for school teachers. Hold up a high standard, but do not make it intrusive or require exactly one thing from all.

To sum up, my one criticism of the previous papers is that the entrance examination they advocate undertakes too much. This is so because (1) their ideal is unattainable, (2) it introduces too much subdivision, and (3) it usurps functions which should belong to the secondary school teacher.

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[Prof. Paul Van Dyke, of Princeton University, continued the discussion.]

Dr E. W. Lytle — There is a thought that I wish to express. It has been said that examinations abridge the liberties of teachers. Would it not be better if the liberties of our teachers should be somewhat abridged in these examinations? Is it not a fact that history teachers suffer more from the results of license, from lack of any proper consensus of opinion, than from the abridgment of their liberty, and would it not be well to restrain the liberty of teachers in history examinations? I believe we are suffering from too much liberty.

Dr Henry E. Shephard — [A summary] Dr Shephard concurred with the essential features of Miss Salmon's paper, and continued as follows: It is a just and rational contention that examination questions in history which are capable only of an explicit answer, negative or affirmative, may present more formidable difficulties than those whose range and complexity admit of latitude and discrimination, and bring into requisition the facility of coordination and correlation. He illustrated his thesis by a number of questions propounded from memory, such for example, as, "Which king of England was crowned four times?" "Who was the only American that received a title of nobility from the Holy Roman Empire?" "Which queen of England was crowned in the Island of Cyprus, and was probably never in England?" "Who was the only English pope?" "Who was the first king of England to receive the title of Majesty?" "Which queen of England had five stepmothers?" "Who was the last Holy Roman emperor crowned at Rome?" The list is capable of indefinite extension, but illustrates the character of the questions contemplated.

He found himself in sympathy with Miss Salmon's views in regard to the rare value of comparative study in every sphere of knowledge, specially in the field of history and literature; for literature, in its intensest aim and idea, is the artistic expression of the historic life. He regarded Miss Salmon's reference to the teacher of his early days, Professor Gildersleeve, as eminently just and felicitous; for in his catholic and versatile scholarship, there is exhibited a range and rich-

ness of culture such as modern specialization has almost effaced in the rigor and relentlessness of its differentiating methods. He had learned as much English as he did Greek, while a student in Professor Gildersleeve's Greek classes at the University of Virginia.

Construction of entrance examination paper in history

Professor Van Dyke's criticisms specially appealed to his sympathies and his judgment. His tribute to the older school of historians, he regarded as thoroughly just and discriminating, and alluded to the stimulating power of Macaulay as a brilliant illustration of the wisdom of his generalization.

Lack of time rendered an elaboration of the speaker's views impossible, and they are presented in the merest outline. He also discussed the most effective modes of developing a rational interest in the study of history, in the special section devoted to this subject; but was unable to present the question adequately in consequence of the limited time at his disposal.

[Dr Julius Sachs, of New York, spoke briefly in support of the paper presented by Miss Salmon, and also of the standards adopted by the examination committee.]

Prof. J. B. Carter—I have listened with great interest to the discussion, and I rise to two points. Dr Sachs has just defended Miss Salmon's paper from the charge of trying to educate the pupil instead of merely examining him. I grant him the defense; but, allowing that to be so, her idea seems to me to be to educate the teacher of the preparatory schools of the country through the paper, in regard to what things they are to teach in history and what methods they are to employ. It seems to me that such a position is fundamentally false, in that it tends to increase the already unhealthfully exaggerated interest which the preparatory schools are taking in the question of examinations. There is much too great a tendency to prepare for examination, rather than to teach a subject. Teach the boy history for its own sake, not merely or even chiefly that he may pass an examination. The preparatory school is a far greater thing than a mere coach for examination. It is an institution which is responsible for the intellectual growth of the boy in the period preceding his college course.

Construction of entrance examination paper in history

My second point is, that Miss Salmon's idea for an examination paper in history seems to prefer judgment questions to memory questions, and hence (according to her device to teach the schools) to emphasize what I believe to be pedagogically false, namely, the attempt to substitute judgment for memory in the pupil. This is contrary to Nature, who has given the pupil a good memory, but allows no judgment. Teach the children facts, make them know things, send them to college with some knowledge. Their history can be taught, ought to be taught philosophically, but it can be so taught only when the preparatory school has given the student this fact. Send us boys who know the fundamental facts, and we will try to teach them to correlate them. But we have no time in our college course to teach both facts and their correlation.

Prof. Charles N. Cobb — I want to call attention to one fact at the close of this discussion, namely, that one of the largest and best known universities in the country has kept a careful tabulation for years with regard to the course in the university, of students entering in different ways, either by examination or by certificate. The result in that university is overwhelmingly in favor of the students entering on examinations not set by that university.

Prof. Sidney T. Moreland — The result of this discussion seems to be, that there ought to be an examination of history in the secondary schools, and that the teacher should lose sight of the fact that the examination is for the purpose of entrance into the college. I can not see how the teacher can be free in these examinations, if he knows his work is to be tested by somebody else. It seems to me, that the teacher of the secondary school, who has taught the student in history, knows himself best whether the student knows any history or not.

Miss Eleanor L. Lord — The criticism has just been made that, in spite of the stress laid by the committee of seven on the fact that history is not a mere memory exercise, a disproportionate number of questions that merely test the memory still appear on the entrance papers set by the colleges.

I would suggest in answer to this that history deals obviously with facts, and that it seems to be impossible to render these

data available for future use without the aid of the memory. Moreover, it is generally conceded to be a truth of psychology that in early youth the memory is more easily trained than in later life, when the power of judgment is more appropriately developed; the immature mind handles the concrete more readily than the abstract. It would seem, therefore, that if the facts of history, whether geographic, or chronologic or what not are to become a part of the student's mental furniture, the preparatory school is the most appropriate place for insistence on definite, accurate knowledge of the undisputed facts of history. I take it that the committee of seven did not intend to recommend that memorization should be entirely eliminated, but that, while examination papers should not be overloaded with questions of such a nature as to encourage cramming, a fair proportion should be allowed to such questions as test the accuracy and definiteness of the student's knowledge, as well as his power to draw comparisons and deduce conclusions from authenticated data.

Miscellaneous
business

A college instructor dealing with freshman classes ought to be able to presuppose just such definiteness of historical knowledge, and not be forced to take time for the sort of training that should have been afforded by the preparatory school as a foundation for that cultivation of the powers of analysis and synthesis that specially differentiates collegiate from secondary school instruction in history.

Properly to adjust the proportion of memory questions in an examination paper to questions that test the power of judgment probably requires "special grace," and the ideal examiner, like the ideal teacher, is evidently born and not made; but it is this very nicety of balance which, it seems to me, must be the aim of those who are concerned with the admission to college of candidates in history.

MISCELLANEOUS BUSINESS¹

Friday morning. The president announced the appointment of the following temporary committees:

Auditing committee. Dr J. E. Gilpin, of Johns Hopkins University; and Principal Samuel C. Fairley, of the Granger Place School, Canandaigua N. Y.

¹ For reports submitted at the Friday afternoon session, and action thereon, see p. 47-51

Miscellaneous
business

The committee on nominations. President A. V. V. Raymond, of Union University; Dean Griffin, of Johns Hopkins University; Principal James M. Green, of the New Jersey State Normal School; Head Master James L. Patterson, of Chestnut Hill School, Philadelphia; and President Edward M. Gallaudet, of Gallaudet College, Washington D. C.

Saturday morning. The president called for the report of the treasurer, which is as follows:

Treasurer's report

To the Association of Colleges and Preparatory Schools of the Middle States and Maryland:

I present herewith my report as treasurer of your association for the year 1901-2, with the customary itemized statement and vouchers:

Receipts

Balance in the treasurer's hands Nov. 29, 1901.....	\$285 65
Received membership dues for 1897-98 from one school	5 ..
Received membership dues for 1898-99 from two schools	10 ..
Received membership dues for 1899-1900 from three schools	15 ..
Received membership dues for 1900-1 from six schools	30 ..
Received membership dues for 1901-2 from 133 schools	665 ..
Received membership dues for 1902-3 from four schools	20 ..

Amount of receipts to Nov. 29, 1902.....	\$1 030 65
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Disbursements

For printing, binding and distributing proceedings 1901	\$366 27
Other printing	39 25
Postage, expressage and telegrams.....	49 97
Expenses of the executive committee.....	67 78
Stationery	6 ..
Services of a stenographer	60 66
Typewriting	27 80

Amount of disbursements	\$617 73
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Balance in the hands of the treasurer, Nov. 29, 1902..	\$412 92
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Six schools are in arrears for membership dues of 1899-1900; 10 for 1900-1; and 37 for 1901-2. The balance in the treasurer's hands with these arrearages, the greater part of which will doubtless be paid, and with the dues for the incoming year, will more than suffice for the probable expenditures of the association during 1902-3. Miscellaneous business

Respectfully submitted,

JOHN B. KIEFFER, *Treasurer*

Lancaster Pa. Nov. 28, 1902

Report of auditing committee

The committee appointed to audit the account of Prof. John B. Kieffer, treasurer of the Association of Colleges and Preparatory Schools of the Middle States and Maryland, beg leave to report that the account submitted has been examined and found correct.

J. ELLIOTT GILPIN

SAMUEL COLE FAIRLEY

Adopted

Committees selected

The president announced that it was necessary to appoint five representatives from the secondary schools on the College Entrance Examination Board, and, as the report of the secretary of the board closes with the recommendation that the committee be reappointed to continue the work, the executive committee had accordingly reappointed the following persons: Dr Julius Sachs, New York; Mr Wilson Farrand, New Jersey; Dr James G. Croswell, New York; Dr S. J. McPherson, Lawrenceville N. J.; and Dr James L. Patterson, Philadelphia Pa.

Professor Hale moved that the committee on entrance requirements in English should be continued. The committee consists of Professor Francis Hovey Stoddard, Head Master Wilson Farrand and Professor Franklin T. Baker.

Adopted

Resolution of thanks

Dean Crane — *Mr President*: I move that the thanks of this association be given to the John Hopkins University and the Woman's College of Baltimore for the cordial welcome and generous hospitality they have extended to this association.

Miscellaneous
business

It has always seemed to me that one of the most valuable features of these meetings was the opportunity to make the personal acquaintance of our colleagues and to exchange our views on points of common interest. This can be done only at such social meetings as the hospitality of Baltimore has rendered possible.

Adopted

Officers. The committee on nominations reported the following for officers of the association for the coming year:

President, President Ira Remsen, Johns Hopkins University, Baltimore Md.

Vice presidents, Principal Louise Sheffield Brownell Saunders, Balliol School, Utica N. Y.; Dr S. J. McPherson, Lawrenceville School, Lawrenceville N. J.; President James D. Moffatt, Washington and Jefferson College, Washington Pa.; Principal A. H. Berlin, Wilmington High School, Wilmington Del.; President Francis A. Soper, Baltimore City College, Baltimore Md.

Secretary, Dr Herman V. Ames, University of Pennsylvania, Philadelphia Pa.

Treasurer, Professor John B. Kieffer, Franklin and Marshall College, Lancaster Pa.

Executive committee, President, secretary and treasurer ex officio; also Head Master Wilson Farrand, Newark Academy, Newark N. J.; Dr James Russell Parsons jr, University of the State of New York, Albany N. Y.; Professor Louis Bevier jr, Rutgers College, New Brunswick N. J.; Professor Edward Everett Hale jr, Union College, Schenectady N. Y.

These officers were elected.

Adjourned

HERMAN V. AMES, *Secretary*

Notice. The next annual convention of the association will be held Nov. 27 and 28, 1903, at Columbia University, New York city.

LIST OF MEMBERS 1902-3

List of
members

LOCATION	INSTITUTION	HEAD OF INSTITUTION
Albany N. Y.	Albany Academy.....	Henry P. Warren L.H.D.
Albany N. Y.	Univ. of the State of N. Y.	Sec. James Russell Parsons jr M.A. LL.D.
Alfred N. Y.	Alfred University.....	Boothe C. Davis Ph.D.
Allegheny Pa.	Allegheny Preparatory Sch..	Henry C. Pearson
Allegheny Pa.	Western Univ. of Pa.....	W. J. Holland Ph.D. D.D.
Allentown Pa.	Muhlenberg College.....	Theodore L. Seip D.D.
Annandale N. Y.	St Stephen's College.....	Rev. Lawrence T. Cole Ph.D.
Annapolis Md.	St John's College.....	Thomas Fell Ph.D. LL.D.
Annvile Pa.	Lebanon Valley College.....	Hervin U. Roop M.A. Ph.D.
Asbury Park N. J.	Asbury Park High School...	Frederick S. Shepherd
Aurora N. Y.	Wells College.....	Jasper W. Freley
Baltimore Md. (714 St Paul street)...	Arundell School for Girls...	Elizabeth Maxwell Carroll B.A.
Baltimore Md.	Baltimore City College.....	Francis A. Soper M.A.
Baltimore Md.	Bryn Mawr School.....	Edith Hamilton
Baltimore Md.	(The) Country School.....	Roland J. Mulford
Baltimore Md.	Friends School.....	John W. Gregg M.A.
Baltimore Md.	Girls Latin School.....	W. H. Shelley
Baltimore Md.	Johns Hopkins Univ.	Ira Remsen LL.D.
Baltimore Md. (1405 Park av.).....	The Randolph-Harrison Sch.	Mrs Alexander Randall
Baltimore Md.	Woman's College.....	J. F. Goucher
Bayonne N. J.	Bayonne City High School..	P. H. Smith
Bethlehem Pa.	Bethlehem Preparatory Sch.	H. A. Foering
Bethlehem Pa.	Moravian Parochial School..	Albert G. Rau B.S.
Bethlehem Pa.	Moravian Seminary.....	J. Max Hark D.D
Beverly N. J.	Farnum Preparatory School.	James B. Dilks
Birmingham Pa.	Mountain Seminary.....	Miss N. J. Davis Miss S. M. Gallaher M.A.
Blairstown N. J.	Blair Presbyterial Academy..	John C. Sharpe
Blairsville Pa.	Blairsville College.....	Rev. S. B. Linhart
Bloomsburg Pa.	State Normal School.....	Judson Perry Welsh M.A. Ph.D
Bordentown N. J.	Bordentown Military Inst...	Thomas H. Landon
Bridgeton N. J.	West Jersey Academy.....	Phoebus W. Lyon M.A.
Brooklyn N. Y.	Adelphi College.....	Charles H. Levermore Ph.D.
Brooklyn N. Y. (183 Lincoln place)...	Berkeley Institute.....	Julian W. Abernethy Ph.D.
Brooklyn N. Y.	Boys High School.....	John Mickleborough
Brooklyn N. Y.	Brooklyn Polytechnic Inst..	Lawrence C. Hull
Brooklyn N. Y.	Erasmus Hall High School..	W. B. Gunnison
Brooklyn N. Y.	Manual Training High Sch..	Charles D. Larkins Ph.B.
Brooklyn N. Y.	Packer Institute.....	Truman J. Backus LL.D.
Brooklyn N. Y.	Pratt Institute.....	Luther Gulick
Bryn Mawr Pa.	Bryn Mawr College.....	Miss M. Carey Thomas Ph.D. LL.D.
Bryn Mawr Pa.	Miss Baldwin's School.....	Florence Baldwin
Buffalo N. Y.	Canisius College.....	Rev. Aloysius Pfeil
Burlington N. J.	St Mary's Hall.....	John Fearnley M.A.
Bustleton Pa.	St Luke's School.....	Charles H. Strout
Canandaigua N. Y.	Granger Place School.....	Samuel C. Fairley
Canton N. Y.	St Lawrence Univ.....	Almon Gunnison D.D. LL.D.
Carlisle Pa.	Dickinson College.....	George Edward Reed D.D. LL.D.
Chambersburg Pa.	Wilson College.....	Rev. Samuel A. Martin D.D.
Chester Pa.	Chester High School.....	T. S. Cole B.A.
Cheestertown Md.	Washington College.....	Charles W. Reid Ph.D.
Chestnut Hill Pa.	Chestnut Hill Academy.....	James L. Patterson
Clinton N. Y.	Hamilton College.....	M. Woolsey Stryker D.D. LL.D.
Collegeville Pa.	Ursinus College.....	Henry T. Spangler D.D.

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List of members	LOCATION	INSTITUTION	HEAD OF INSTITUTION
	Dobbs Ferry N. Y.	The Mackenzie School.....	Rev. James C. Mackenzie Ph.D.
	Dover Del.	Conference Academy.....	Rev. V. S. Collins
	East Orange N. J.	East Orange High School....	Charles W. Evans
	Easton Pa.	Easton High School.....	B. F. Sandt
	Easton Pa.	Lafayette College.....	Ethelbert D. Warfield LL.D.
	Frederick Md.	Woman's College.....	Joseph H. Apple M.A.
	Garden City L. I.	Cathedral Sch. of St Paul's.	Frederick L. Gamage M.A.
	Geneva N. Y.	Hobart College.....	Rev. Robert Ellis Jones B.A. D.D
	George School Pa.	George School.....	J. S. Walton Ph.D.
	Georgetown D. C.	Georgetown College.....	Father J. D. Whitney
	Germantown Pa.	Friends School.....	Davis H. Forsythe
	Germantown Pa.	Germantown Academy.....	William Kershaw Ph.D.
	Hamilton N. Y.	Colgate Academy.....	Frank L. Shepardson M.A.
	Hamilton N. Y.	Colgate University.....	George E. Merrill D.D. LL.D.
	Harrisburg Pa.	Harrisburg High School....	Samuel A. Baer
	Haverford Pa.	Haverford College.....	Isaac Sharpless LL.D.
	Haverford Pa.	Haverford College Grammar School.....	Charles S. Crossman
	Hightstown N. J.	Peddie Institute.....	Roger W. Sweetland B.A.
	Ithaca N. Y.	Cornell University.....	J. G. Schurman M.A. D.Sc. LL.D.
	Ithaca N. Y.	Ithaca High School.....	F. D. Boynton
	Lancaster Pa.	Franklin & Marshall College.	John S. Stahr Ph.D. D.D.
	Lancaster Pa.	Yeates Institute.....	Rev. Frederick Gardiner
	Lawrence N. Y.	Lawrence School.....	H. D. Pettit M.A.
	Lawrenceville N. J.	Lawrenceville School.....	S. J. McPherson Ph.D.
	Lewisburg Pa.	Bucknell University.....	John H. Harris D.D.
	Lititz Pa.	Linden Hall Seminary.....	Rev. C. L. Moench
	McDonogh Md.	McDonogh School.....	Sidney T. Moreland
	Meadville Pa.	Allegheny College.....	William H. Crawford D.D.
	Mercersburg Pa.	Mercersburg Academy.....	William Mann Irvine Ph.D.
	Millersville Pa.	First Pa. State Normal Sch..	E. Oram Lyte M.A. Ph.D.
	Montclair N. J.	Montclair Military Academy.	John G. Mac Vicar
	Montclair N. J.	Montclair Public School....	Randall Spaulding B.A.
	Morristown N. J.	Morristown School.....	Francis C. Woodman
	Myerstown Pa.	Albright College.....	Clellan A. Bowman
	New Brunswick N. J.	Rutgers College.....	Austin Scott Ph.D. LL.D.
	New Brunswick N. J.	Rutgers Prep. Academy....	Eliot R. Payson Ph.D.
	New York city (117 W. 125th street)..	Barnard School for Boys....	William Livingston Hasen B.A. LL.B.
	New York city.....	Brearley School.....	J. G. Crosswell B.A.
	New York city (721 Madison avenue)...	Chapin Collegiate School....	Henry B. Chapin Ph.D. D.D.
	New York city (30 W. 16th street).....	Col. of St Francis Xavier...	Rev. D. W. Hearn S.J.
	New York city (241 W. 77th street)....	Collegiate School.....	L. C. Mygatt
	New York city (34 and 36 E. 51st street)...	Columbia Grammar School...	Benjamin Howell Campbell M.A.
	New York city.....	Columbia University.....	Nicholas Murray Butler Ph.D. LL.D.
	New York city (20 E. 50th street).....	Cutler School.....	A. H. Cutler
	New York city (60 W. 13th street).....	De Witt Clinton[High School	John T. Buchanan M.A.
	New York city (226 E. 16th street).....	Friends Seminary.....	Edward B. Rawson B.S.
	New York city (54 W. 84th street).....	Irving School.....	Louis Dwight Ray M.A. Ph.D.
	New York city (Grand Boulevard & 131st street).....	Manhattan College.....	Bro. Justin F. S.C.

LOCATION	INSTITUTION	HEAD OF INSTITUTION	List of members
New York city (340 W. 86th street)...	Misses Ely's School.....	Elizabeth L. Ely	
New York city.....	New York University.....	Henry M. MacCracken D.D. LL.D.	
New York city (3080 3d avenue).....	Peter Cooper High School..	Edward J. Goodwin Lit.D.	
New York city (38 W. 59th street).....	Sachs Collegiate Inst.....	Julius Sachs B.A. Ph.D.	
New York city (114th st and 7th av.)....	Wadleigh High School.....	John G. Wight Ph.D.	
Newark Del.....	Delaware College.....	George A. Harter M.A. Ph.D.	
Newark N. J.....	Newark Academy.....	{ S. A. Farrand Ph.D. Wilson Farrand	
Newark N. J.....	Newark Public High School.	E. O. Hovey Ph.D.	
N. Plainfield N. J....	High School.....	H. J. Wightman	
Ocean Grove N. J....	Neptune Township High Sch.	L. A. Doren	
Ogonts Pa.....	Cheltenham Academy.....	John D. Skilton	
Orange N. J.....	Dearborn-Morgan School....	David A. Kennedy Ph.D.	
Ossining N. Y.....	Dr Holbrook's School.....	Dwight Holbrook Ph.D.	
Ossining N. Y.....	Mt Pleasant Academy.....	C. F. Brusie M.A. and A. T. Emory B.A.	
Palmyra N. Y.....	Classical High School.....	W. J. Deans	
Peekskill N. Y.....	Mohegan Lake School.....	Henry Waers M.A.	
Pennsburg Pa.....	Perkiomen Seminary.....	Rev. O. S. Kriebel M.A.	
Philadelphia (2011 DeLancey place)...	(The) Agnes Irwin School...	Sophy Dallas Irwin	
Philadelphia.....	Drexel Institute of Art, Science and Industry.....	James MacAlister LL.D.	
Philadelphia.....	Episcopal Academy.....	William H. Klapp M.A. M.D.	
Philadelphia (15th and Race streets)...	Friends Central High Sch...	{ Boys dep't, J. Eugene Baker Girls dep't, Annie Shoemaker	
Philadelphia (140 N. 16th street).....	Friends Select School.....	J. Henry Bartlett	
Philadelphia (17th & Spring Garden st.)	Girls High School.....	W. D. Rorer M.A.	
Philadelphia (1720 Arch street).....	Philadelphia Collegiate Inst. for Girls.....	Susan C. Lodge	
Philadelphia (13th & Spring Garden st.)	Phila. Normal Sch. for Girls	J. Monroe Willard	
Philadelphia Pa.....	Temple College.....	Rev. R. H. Conwell	
Philadelphia Pa.....	University of Pennsylvania	Charles C. Harrison LL.D.	
Pittsburg Pa.....	Alinda Preparatory School..	Ella Gordon Stuart	
Pittsburg Pa.....	Central High School.....	Charles B. Wood M.A.	
Pittsburg Pa.....	Shady Side Academy.....	W. R. Crabbe Ph.D.	
Pittsburg Pa. (Shady avenue).....	Thurston Preparatory Sch....	Alice M. Thurston	
Pocantico Hills N. Y.	St Matthews Military Sch....	O. Legare Rogers Ph.B.	
Port Deposit Md....	Tome Institute.....	A. W. Harris Ph.D. Sc.D.	
Pottstown Pa.....	Hill School.....	John Meigs Ph.D.	
Poughkeepsie N. Y..	Riverview Academy.....	J. B. Bisbee M. A.	
Poughkeepsie N. Y..	Vassar College.....	James M. Taylor D.D. LL.D.	
Princeton N. J.....	Princeton University.....	Woodrow Wilson LL.D.	
Reading Pa.....	Boys High School.....	Charles S. Foos	
Redbank N. J.....	High School.....	S. V. Arrowsmith	
Rochester N. Y.....	University of Rochester....	Rush Rhees LL.D.	
Rye N. Y.....	Rye Seminary.....	Mrs Life and the Misses Stowe	
Schenectady N. Y....	Union Classical Inst.....	Arthur Marvin M.A.	
Schenectady N. Y....	Union University.....	A. V. V. Raymond D.D. LL.D.	
S. Bethlehem Pa....	Lehigh University.....	Thomas Messenger Drown LL.D.	
S. Orange N. J.....	High School.....	George J. McAndrew M.A.	
Stapleton L. I.....	Staten Island Academy.....	Frederick E. Partington M.A.	
State College Pa....	Pa. State College.....	George W. Atherton LL.D.	
Summit N. J.....	Kent Place School.....	Sarah Woodman Paul	

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Delegates registered	LOCATION	INSTITUTION	HEAD OF INSTITUTION
	Swarthmore Pa.....	Swarthmore College.....	Joseph Swain LL.D.
	Swarthmore Pa.....	Swarthmore Prep. School....	Arthur H. Tomlinson
	Syracuse N. Y.....	Syracuse University.....	Rev. James Roscoe Day S.T.D. LL.D.
	Trenton N. J.....	State Model School.....	James M. Green Ph.D.
	Utica N. Y.....	The Balliol School.....	{ Mrs. Louise Sheffield Brownell Saunders Ph.D. Edith Rockwell Hall
	Utica N. Y.....	Utica Free Academy.....	A. L. Goodrich B.A.
	Warren Pa.....	Warren High School.....	W. L. MacGowan
	Washington D. C....	Catholic Univ. of America...	Rt. Rev. Mgr. D. R. O'Connell D.D. I.L.D.
	Washington D. C....	Columbian University.....	Charles W. Needham D.D. LL.D.
	Washington D. C....	Friends Select School.....	{ Thomas W. Sidwell Frances Haldeman Sidwell
	Washington D. C....	Gallaudet College.....	Edward Minor Gallaudet Ph.D. LL.D.
	Washington D. C....	Howard University.....	J. E. Rankin LL.D.
	Washington D. C....	The University School.....	Robert L. Preston
	Washington D. C.	(Wisconsin av.)... The Washington School for Boys.....	Louis L. Hooper
	Washington Pa.....	Trinity Hall.....	William W. Smith
	Washington Pa.....	Washington & Jefferson Col.	James D. Moffatt D.D.
	Waynesburg Pa.....	Waynesburg College.....	A. E. Turner
	West Chester Pa....	State Normal School.....	G. M. Phillips M.A. Ph.D.
	West Chester Pa....	West Chester High School...	Addison L. Jones
	Westminster Md....	Western Maryland College ..	T. H. Lewis
	Westtown Pa.....	Westtown School.....	William F. Wickersham M.A.
	Wilmington Del....	Friends School.....	Herschel A. Norris M.A.
	Yonkers N. Y.....	Halsted School.....	Mary S. Jenkins
	Yonkers N. Y.....	Yonkers High School.....	William A. Edwards
	York Pa.....	Collegiate Institute.....	E. T. Jeffers

DELEGATES REGISTERED 1902

Albright College, Myerstown Pa. Aaron E. Gobble, William P. Winter, J. D. Woodring

Alinda Preparatory School, Pittsburg Pa. Ella Gordon Stuart

Balliol School, Utica N. Y. Miss E. R. Hall, Mrs A. P. Saunders

Baltimore Md. Louise P. du Bellet

Baltimore (Md.) City College. Pres. Francis A. Soper, Vice Pres. Charles F. Raddatz

Barnard College, New York. Dean Laura D. Gill

Beaver (Pa.) College. Pres. Arthur Staples

Berkeley Institute, Brooklyn N. Y. Prin. J. W. Abernethy

Blairsville (Pa.) College. Pres. S. B. Linhart

Bordentown (N. J.) Military Institute. Rev. Thompson H. Landon

Boys High School, Brooklyn N. Y. O. D. Clark

Carnegie Institution, Baltimore Md. D. C. Gilman

Central High School, Philadelphia Pa. Prof. Francis Burke Brandt, Cheesman A. Herrick

Central Manual Training School, Philadelphia Pa. R. H. Bradbury Ph.D. Edward A. Partridge, Prin. William L. Sayre

Chellenham Academy, Ogontz Pa. Fred J. Doolittle, Prin. John D. Skilton

Chestnut Hill Academy, Philadelphia Pa. Head Master James L. Patterson

Collegiate School, New York. Prin. L. C. Mygatt

Columbia University, New York. Dr Leopold Bahlisen, James H. Canfield, librarian, Prof. Thomas S. Fiske, Dr A. C. Howland, Mrs A. C. Howland, Sec. F. P. Keppel, Dean James E. Russell

- Commercial High School for Girls*, Philadelphia Pa. Lucille Andrews, Anna V. Beck, Amanda C. Beitler, Prin. Emily L. Graham, Mary S. Holmes, Mary G. Umsted **Delegates registered**
- Concordville Pa.* Mrs Joseph Shortlidge
- Cornell University*, Ithaca N. Y. Dean T. F. Crane, Charles DeGarmo Ph.D.
- Country School*, Baltimore Md. Roland J. Mulford
- Delaware College*, Newark Del. Elisha Conover, Edgar Dawson, Pres. George H. Harter
- DeWitt Clinton High School*, New York. C. F. Kayser, Prof. Mervin G. Filler
- Drezel Institute*, Philadelphia Pa. Maude G. Hopkins
- Dr Holbrook's School*, Ossining N. Y. Dwight Holbrook
- Erasmus Hall High School*, Brooklyn N. Y. Charles S. Estes
- Franklin and Marshall College*, Lancaster Pa. Pres. John S. Stahr
- Friends Central School*, Philadelphia Pa. J. Eugene Baker, W. E. Barrett, Edward Clirlson, A. Jennie Cornell, Mary J. Elliott, Prin. Anna Walter Speakman B.A., Sarah Hall Stirling B.A.
- Friends Select School*, Philadelphia Pa. Mary Anna Jones, Henry Arnold Todd
- Friends Select School*, Washington D. C. Thomas W. Sidwell, Mrs Thomas W. Sidwell
- Gallaudet College*, Washington D. C. Herbert E. Day, Pres. E. M. Gallaudet
- Germantown Friends School*, Philadelphia Pa. Prin. Davis H. Forsythe, Jane Shoemaker Jones
- George School*, George School Pa. Joseph S. Walton, Mrs Walton
- Girard College*, Philadelphia Pa. Alfred N. Seal
- Girls High School*, Philadelphia Pa. Virginia Baldwin, Rachael P. Barker, Emma H. Carroll, Ada B. Curtis, Adah V. Hubbs, J. H. Humphries, Ida A. Keller, Louise Kromer, Elizabeth W. Massinger, Katharine E. Puncheon, Prin. William D. Rorer, Emma L. G. Thomas
- Girls Latin School*, Baltimore Md. Anna Latimer Bacon, Catharine C. Cleveland, A. Laura Emiger, Dora Johnson, Jessie M. Loeffler, Edith S. Merritt, Amelie F. Tournier, Harlan Updegraff, Jeannette L. Wilmot, Nellie M. Wilmot
- Granger Place School*, Canandaigua N. Y. Prin. Samuel Cole Fairley
- Halsted School*, Yonkers N. Y. Prin. Mary Sicard Jenkins
- Harvard University*, Cambridge Mass. Prof. F. W. Fairfield
- High School of Commerce*, New York. Prin. James J. Sheppard, James Sullivan Ph.D.
- Hills Lyman's School*, Philadelphia Pa. Valentine Touner
- Kent Place School*, Summit N. J. Mrs S. W. Paul, Prin. A. S. Vordinen
- Kiskiminetas Springs School*, Saltsburg Pa. Prin. R. W. Fair
- Landsdowne Pa.* Mrs J. Eugene Baker, Anna Woolman
- Linden Hall Seminary*, Lititz Pa. Prin. Charles D. Kreider, Mrs Kreider
- Lincoln C. G. S.* Philadelphia Pa. Emanuella Kromer
- Loyola College*, Baltimore Md. Rev. M. A. McLoughlin S.J., Rev. J. I. Ziegler S.J.
- McDonogh (Md.) School.* Prin. S. T. Moreland
- Manhattan College*, New York. Brother Jerome, president
- Manual Training School*, Wilmington Del. Grace L. Smith
- Maplewood Institute*, Concordville Del. co. Pa. Prin. Joseph Shortlidge
- Maryland Agricultural College*, College Park Md. Pres. R. W. Selvecte
- Maryland State Normal School*, Baltimore Md. Herbert E. Austin, Sarah F. Richmond

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registered!

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Misses Ely's School for Girls, New York. Elizabeth L. Ely, Helen A. Gavil
Miss Stahr's School, Lancaster Pa. Grace Phernisty, Helen R. Stahr
Mohegan (N. Y.) Lake School. H. Waters, Mrs H. Waters
Montclair (N. J.) High School Mary North
Moravian Parochial School, Bethlehem Pa. Edwin M. Fagel, Albert G. Rau
Moravian Seminary, Bethlehem Pa. Laurence C. Briekensteir.
Mountain Seminary, Birmingham Pa. Miss Davis, principal
National Park Seminary, Forest Glen Md. Ida' Muncac
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Newark (N. J.) Academy. Emmons Bryant, Head master Wilson Farrand
New York N. Y. F. C. Hodgdon; *Trunk Line Ass'n*, G. W. Smith; *American Book Co.*, J. R. Fairchild; *D. Appleton & Co.*, A. L. Hart; *local school board*, Miss E. O. Brownell
New York (N. Y.) University. Prof. Francis Hovey Stoddard
Northeast Manual Training School, Philadelphia Pa. V. B. Brecht, Prin. Andrew J. Morrison
Philadelphia Pa. H. J. Turner Ph.D.; *D. Appleton & Co.*, E. W. Moore; *Ginn & Co.*, H. A. Coffin
Philadelphia (Pa.) Collegiate Institute for Girls. Susan C. Lodge
Philadelphia (Pa.) High School for Girls. Blanche Baldwin
Philadelphia (Pa.) Normal School. Mary Adair, Alice H. Beckler, Mary E. Divier, Emma C. Harlen, Lila Strong Jones, Eleanor S. Lungren, Mary C. Peacock, Margaret S. Pickard, Maria P. Ryan, Pauline W. Spencer, Grace E. Spiegler, Elizabeth S. Tait, Prin. J. Monroe Willard; Elizabeth N. Woolman
Princeton (N. J.) University. Prof. Jesse Benedict Carter
Public High School, Montclair N. J. Randall Spaulding
Riverview Academy, Poughkeepsie N. Y. Josiah Bartlett
Rutgers College, New Brunswick N. J. Louis Bevier jr Ph.D.
Sachs' Collegiate Institute, New York. Dr Julius Sachs
Shady Side Academy, Pittsburg Pa. Prin. W. R. Crabbe, C. M. Murray
St John's College, Annapolis Md. Pres. Thomas Fell LL.D., J. B. White
State Normal School, Bloomsburg Pa. Paul F. Peck
State Normal School, Metuchen N. J. Harriet Alden
State Normal School, Trenton N. J. Sarah A. Dynes, Dr J. M. Green, Margaret B. MacDonald
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Stevens School, Germantown Pa. Mrs J. F. Deipps, principal
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Temp'e College, Philadelphia Pa. Barclay W. Bradley, Arthur B. Turner
Tome Institute. Thomas L. Balcer
Union College, Schenectady N. Y. Prof. Edward E. Hale jr, Pres. Andrew V. V. Raymond
United States Naval Academy, Annapolis Md. Prof. N. Marion
University of Pennsylvania, Philadelphia Pa. Herman V. Ames, E. P. Cheyney, George S. Fullerton, Lightner Witmer
University School for Boys, Baltimore Md. William Tappan

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Newell Cobb, Henry L. Taylor, Eugene W. Lyttle
- Ursinus College*, Collegeville Pa. J. Lyman Barnard, Pres. Henry T. Spangler
- Vassar College*, Poughkeepsie N. Y. Professors A. Leach, Lucy M. Salmon;
Pres. J. M. Taylor
- Vienna Academy*, Vienna Md. E. F. Webb
- Wadleigh High School*, New York. Martha Bunting, John G. Wight, Mrs John
G. Wight
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S. Wills
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- Westtown (Pa.) Boarding School.* W. H. Elfreth, Prin. William F. Wickersham
- Wilmington (Del.) Friends School.* Prin. Herschel A. Norris
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Maude E. Miner
- Woman's College*, Baltimore Md. Elma Latimer Bacon, Grace Patton Conant,
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- York (Pa.) Collegiate Institute.* Pres. E. T. Jeffers

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FOR 1898-99

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School

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Principal William F. Wickersham, Westtown Pa.

Secretary

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¹ A list of officers of the association from 1887-98 inclusive may be found in the proceedings of the 11th annual convention.

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 Principal Eli M. Lamb, Friends School, Baltimore Md.
 Professor Charles De Garmo, Cornell University, Ithaca N. Y.
 Principal S. J. McPherson, Lawrenceville School, N. J.

Secretary

Dr Herman V. Ames, University of Pennsylvania, Philadelphia Pa.

Treasurer

Professor John B. Kieffer, Franklin and Marshall College, Lancaster Pa.

Executive committee

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 Professor Dana C. Munro, University of Pennsylvania, Philadelphia Pa.
 Dean Horatio S. White, Cornell University, Ithaca N. Y.
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 Principal Charles W. Evans, East Orange (N. J.) High School
 Professor Louis Bevier jr, Rutgers College, New Brunswick N. J.

Dr W. R. Crabbe, Shady Side Academy, Pittsburg Pa.

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Secretary

Dr Herman V. Ames, University of Pennsylvania, Philadelphia Pa.

Officers

Treasurer

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Professor Dana C. Munro, University of Pennsylvania, Philadelphia Pa.

Professor James H. Robinson, Columbia University, New York
Superintendent Randall Spaulding, Montclair N. J.

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Dr S. J. McPherson, Lawrenceville (N. J.) School

President James D. Moffatt, Washington and Jefferson College, Washington Pa.

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President Francis A. Soper, Baltimore (Md.) City College

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Dr Herman V. Ames, University of Pennsylvania, Philadelphia Pa.

Treasurer

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James Russell Parsons jr, University of State of New York, Albany N. Y.

Professor Louis Bevier jr, Rutgers College, New Brunswick N. J.

Professor Edward Everett Hale jr, Union College, Schenectady N. Y.

PUBLICATION OF THE ASSOCIATION FOR 1902¹Publica-
tion 1902

Proceedings of the 15th Annual Convention of the Association of Colleges and Preparatory Schools of the Middle States and Maryland, held at Syracuse University, Syracuse N. Y., Nov. 29 and 30, 1901. University of the State of New York. Regents bulletin 57. March 1902.

Address of welcome, Chancellor James R. Day

Response, President Andrew V. V. Raymond

The Elective System and a Liberal Education, Professor James H. Robinson

Discussion, Rev. Timothy Brosnahan, Principal A. L. Goodrich, President

Rush Rhees, President M. Woolsey Stryker, Professor Louis Bevier jr

Freedom of Speech in Connection with Education

Rights of Donors, St Clair McKelway

Duty of the Institution to Maintain Freedom of Speech, President J. G. Schurman

Discussion, James C. Colgate, President W. H. P. Faunce, Hon. Alton B. Parker

President's address: The Ethical Element in Education

Report of College Entrance Examination Board. President Nicholas Murray Butler

How Should the Entrance Examination Paper in English be Constructed? Professor Edward Everett Hale jr. Discussion, Mrs Louise Sheffield Brownell Saunders, Inspector Charles Davidson, Principal William K. Wickes

Miscellaneous business

Conference of history teachers

¹ A list of the publications of the association since 1887, together with the titles of papers contained therein, as also the constitution of the association, may be found in the proceedings of the 15th annual convention.



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University of the State of New York

Object. The object of the University as defined by law is to encourage and promote education in advance of the common elementary branches. Its field includes not only the work of secondary schools, colleges, universities, professional and technical schools, but also educational work connected with libraries, museums, study clubs, extension courses and similar agencies.

The University is a supervisory and administrative, not a teaching institution. It is a state department and at the same time a federation of more than 1000 institutions of higher and secondary education.

Government. The University is governed and all its corporate powers exercised by 19 elective Regents and by the Governor, Lieutenant Governor, Secretary of State and Superintendent of Public Instruction who are ex officio Regents. Regents are elected in the same manner as United States senators; they are unsalaried and are the only public officers in New York chosen for life.

The elective officers are a Chancellor and a Vice Chancellor, who serve without salary, and a secretary. The secretary is the executive and financial officer, is under official bonds for \$10,000, is responsible for the safe-keeping and proper use of the University seal and of the books, records and other property in charge of the Regents, and for the proper administration and discipline of its various offices and departments.

Powers and duties. Besides many other important powers and duties, the Regents have power to incorporate, and to alter or revoke the charters of universities, colleges, academies, libraries, museums, or other educational institutions; to distribute to them funds granted by the State for their use; to inspect their workings and require annual reports under oath of their presiding officers; to establish examinations as to attainments in learning and confer on successful candidates suitable certificates, diplomas and degrees, and to confer honorary degrees.

They apportion annually an academic fund of \$350,000, part for buying books and apparatus for academies and high schools, raising an equal amount for the same purpose, \$100 to each nonsectarian secondary school in good standing and the remainder on the basis of attendance. The Regents also granted in 1902 about \$23,000 for the benefit of free public libraries.

Regents meetings. The annual meeting is held the first Thursday in December, and other meetings are held as often as business requires. An executive committee of nine Regents is elected at the annual meeting to act for the board in the intervals between its meetings, except that it can not grant, alter, suspend or revoke charters or confer honorary degrees.

Convocation. The University Convocation of the Regents and the officers of institutions in the University, for consideration of subjects of mutual interest, has been held annually since 1863 at the capitol in Albany. It meets Monday, Tuesday and Wednesday after the fourth Friday in June.

Though primarily a New York meeting, nearly all questions discussed are of equal interest outside of the State. Its reputation as the most important higher educational meeting of the country has in the past few years drawn to it many eminent educators not residents of New York, who are most cordially welcomed and share fully in all discussions. A council of five is appointed to represent it in intervals between meetings. Its proceedings, issued annually, are of great value in all educational libraries.

University of the State of New York

UNIVERSITY INSTITUTIONS	No. MAY 21, 1903	STUDENTS—June 30, 1902	
		Men	Women
Universities and colleges of liberal arts			
For men	21	3 228	.....
“ women	5	.....	3 437
“ men and women	7	1 482	1 013
Total	33	4 710	4 450
Professional and technical schools			
Theology	16	964	17
Law	7	2 338	53
Education	3	630	1 682
Medicine	13	3 580	164
Dentistry	3	678	21
Pharmacy	5	678	35
Veterinary medicine	2	200	.....
Ophthalmology	1	1	.....
Engineering and technology	5	1 417	8
Art	3	151	1 186
Music	4	226	876
Other	21	7 692	3 121
Total	83	18 555	7 163
Academies			
Academies (incorporated)	103	4 261	4 818
Senior academic schools	3	21	88
Middle “	12	160	308
Junior “	22	521	422
Special “	3	1 250	2 517
Total	143	6 213	8 153
High schools			
High schools	376	29 388	40 048
Senior “	39	736	904
Middle “	70	1 061	1 330
Junior “	144	1 717	2 231
Special “	3	63	37
Total	632	32 965	44 550
Organizations for home education			
Institutes	2	.....	.....
Libraries	236	.....	.....
Museums	2	.....	.....
Total	240	.....	.....
Affiliated with the University			
Libraries, study clubs, associations, business schools, other	749	.....	.....
Grand total	1 880	a 62 022	a 63 925
		a 125 947	

a, Omitting duplicates.

Univ. of S. N. Y.
 Home Education Department

MELVIL DEWEY Director

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REPORT ON PUBLIC LIBRARIES

1902

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University of the State of New York

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With years of election

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1881 WILLIAM H. WATSON M.A. M.D. LL.D. - Utica

1881 HENRY E. TURNER LL.D. - - - - Lowville

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1901 ROBERT C. PRUYN M.A. - - - - Albany

1902 WILLIAM NOTTINGHAM M.A. Ph.D. LL.D. - Syracuse

1903 FRANK W. HIGGINS Lieutenant Governor, ex officio

1903 JOHN F. O'BRIEN Secretary of State, ex officio

1903 CHARLES A. GARDINER LL.B. M.A. Ph.D. LL.D. New York

1903 CHARLES S. FRANCIS B.S. - - - - Troy

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Elected by Regents

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1890 JAMES RUSSELL PARSONS JR M.A. LL.D.

Administrative, College and High School Dep'ts

1890 **FREDERICK J. H. MERRILL** Ph.D. *State Museum*

Home Education Department

MELVIL DEWEY Director

Bulletin 42

PUBLIC LIBRARIES 12

REPORT ON PUBLIC LIBRARIES

1902

To the Regents of the University of the State of New York

As director of the Home Education Department I report on the public libraries division for the year ending Sep. 30, 1902, as follows:

Staff and expenditures. The work has been done by the same staff as last year with the addition of William F. Yust as sub-inspector.

Expenditures for home education including public libraries, traveling libraries and collections, study clubs and extension teaching were: cash grants to public libraries \$22,767.49, books \$3331.93, binding \$8.98, pictures, lanterns and slides \$4189.25, fittings \$913.35, supplies \$230.54, printing \$1534.71, travel \$986.70, repairs \$5.30, telegrams and telephone \$180.08, services \$303.03, returned fees \$44.64, incidentals \$5.33, salaries \$29,648.85, a total of \$64,150.18, an increase of \$9201.24 over 1901.

LIBRARIES UNDER STATE SUPERVISION

Charters and transfers. During the year 10 permanent and 18 provisional library charters were granted. Five provisional charters previously granted were made permanent, and one library was reincorporated. Three charters were amended by changing corporate names, and two by changing the methods of

electing trustees to conform to changes in city charters. Fourteen library transfers were approved and the charters of two of those transferred and thus consolidated with other libraries were surrendered and the corporations dissolved. Another corporation was dissolved where a new organization had taken its place.

The following tables show location, name, volumes and property of each library.

Library charters, Oct. 1, 1901-Sep. 30, 1902

No.	Postoffice	Corporate name	Volumes	Property
<i>Permanent charters</i>				
1	Chazy	Chazy Public Library	500	\$1 000 ..
2	Greenwich	Greenwich Free Library	1 800	3 812 29
3	Irvington	Guiteau Library		16 250 ..
4	Hamburg	Hamburg Free Library	1 000	1 231 ..
5	Hill View	Hillview Free Library	1 220	1 609 36
6	Clinton	Kirkland Town Library	780	1 445 87
7	Lewiston	Lewiston Free Library	2 273	1 800 ..
8	Homer	Phillips Free Library		13 500 ..
9	Griffin Corners	Skene Library	875	5 625 ..
10	Tuxedo Park	Tuxedo Park Library	2 000	20 500 ..
<i>Provisional charters made permanent</i>				
1	Ballston Spa	Ballston Spa Public Library ..	1 319	1 290 45
2	Newark	Newark Free Public Library ..	3 805	24 711 97
3	Oyster Bay	Oyster Bay Free Library	4 000	10 294 ..
4	Theresa	Theresa Free Library	760	1 574 ..
5	Westhampton Beach	Westhampton Free Library ...	1 200	1 306 ..
<i>Provisional charters for five years</i>				
1	Alden	Alden Free Library	630	\$618 12
2	Bayshore	Bay Shore Free Library	228	342 83
3	Bolton Landing	Bolton Free Library	579	681 50
4	Chautauqua	Chautauqua Free Library	461	654 80
5	Cherry Valley	Cherry Valley Library	473	665 07
6	Chester	Chester Free Library	40	145 ..
7	New Hampton	Denton Library	4	152 ..
8	Farmer	Farmer Free Library		100 ..
9	Granville	Granville Free Library	301	614 26
10	New York	High Bridge Free Library	90	167 ..
11	Keene	Keene Center Free Library	150	115 ..
12	Millbrook	Millbrook Free Library	1 000	600 ..
13	Newark Valley	Newark Valley Public Library ..	650	375 ..
14	Nineveh	Nineveh Public Library	31	125 ..
15	Palmyra	Palmyra King's Daughters Free Library	300	437 75
16	Phoenicia	Phoenicia Free Library	500	444 50
17	Portville	Portville Free Library	585	425 ..
18	Mayville	Tuesday Club Library	200	350 ..
<i>Reincorporated</i>				
1	Amsterdam	Amsterdam Free Library		

<i>Charters amended</i>		
1	Bath	Name changed from Bath Library Association to Davenport Library
2	Bath-on-Hudson	Charter of Bath-on-Hudson Public Library amended by striking out the words "elected by the board of education" and inserting in their place "appointed by the mayor of the city of Rensselaer with the consent of the common council"
3	North Easton	Name changed from Easton Library Association to Burton Library
4	Kingston	Charter of Ponckhockie Public Library amended by striking out the words "of school district no. 4"
5	Union Springs	Name changed from Union Springs Library Association to Springport Free Library

Library transfers approved Oct 1, 1901-Sep. 30, 1902

No.	From	To	Vols.
1	Bay Ridge Free Library	Brooklyn Public Library	6 145
2	Fort Hamilton Free Library	"	6 600
3	New Utrecht Free Library	"	3 448
4	Union for Christian Work	"	45 875
5	Flushing Library Association	Queens borough Library	7 408
6	Hollis Public Library	"	1 207
7	Richmond Hill Library	"	2 124
8	Greenwich board of education	Greenwich Free Library	1 800
9	Nineteenth Century Club	Hamburg Free Library	1 000
10	Hudson board of education	Hendrick Hudson Free Library	2 874
11	Johnstown board of education	Johnstown Public Library	4 586
12	Lewiston Men's Club	Lewiston Free Library	2 273
13	St Agnes Free Library	New York Public Library	8 561
14	Washington Heights Free Library	"	18 664

Charters surrendered and corporations dissolved

New Utrecht Free Library, Bath Beach, Brooklyn	became branch of Brooklyn Public Library
St Agnes Free Library, New York	became branch of New York Public Library
Schuylerville Public Library	superseded by Schuylerville Free Library

Growth. The number of libraries holding University charters, after deducting two withdrawn by consolidation and one replaced by a new organization in the same village, has increased by 25. There are now 212 independent libraries in the University, all except four, free for circulation.

Resources of new libraries. The property of the 28 libraries newly chartered varied from \$100 to \$20,500. The smaller

libraries relied on receiving a state grant of \$100 to add to their slender resources and with this small beginning they were able to furnish the books most needed in very small communities. The total property represented by their applications was \$73,786.35. The number of volumes in these libraries ranged from none to 2273. The total number of volumes was 16,670.

Five libraries holding provisional charters received permanent charters on showing property of \$1000 or more in each case. Gifts of valuable buildings enabled Oyster Bay free library to report property worth \$10,294 and Newark Free Public Library, \$24,711.

Registered libraries. Libraries chartered by the University or admitted on special application are not the only ones on its register. Many have been incorporated by the Legislature or under general law and a large number are attached to other incorporated institutions. Those not wishing a new or independent charter have been registered on request, if conforming to an approved library standard. Such registry places them on the same footing as University libraries in respect to state supervision and state and local aid. Each branch library of 1000 volumes may also be registered, so that one library in New York or Brooklyn may have 13 or 17 branches on the register. We must therefore add to the 212 University libraries 107 registered libraries, making a total of 319 libraries and branches.

The New Utrecht Free Library of Brooklyn and the St Agnes Free Library of New York having surrendered their charters, these corporations were dissolved, but the libraries are continued as registered branches of the public libraries in their respective boroughs. The name of the library of the Albany Catholic Union was changed on the register to the Albany Union Free Library. Three libraries transferred to new corporations have been dropped from the roll. These are

Hamburg Free Library of Nineteenth Century Club

Johnstown Library

Lewiston Free Library of Men's Club

Libraries and branches registered Oct. 1, 1901-Sep. 30, 1902

No.	Postoffice	Name	Volumes	Property
1	Albany.....	Y. M. A. Library, Pruyn branch	2 535	\$25 500 ..
2	Brooklyn...	Brooklyn Public Library, Astral branch.....	5 800	6 620 ..
3		New Utrecht branch.....	3 448	3 843 ..
4		Saratoga branch	1 563	2 050 ..
5		Hartnett Free Library.....	2 598	2 178 50
6		Hebrew Educational Society Library	3 426	3 000 ..
7	Buffalo	Buffalo Public Library, William Ives branch.....	2 773	3 483 ..
8	Geneseo.....	Wadsworth Library	12 337	32 520 12
9	New York...	Bethany Memorial Library	1 200	2 175 ..
10		N. Y. Public Library, St Agnes branch	8 561	10 283 19
11	Ozone Park..	Queensborough Library, Ozone Park branch.....	328	332 50

INSPECTION

Libraries visited. During the year inspector William R. Eastman has been materially aided by subinspector William F. Yust. As a result of their joint efforts more than twice as many libraries have been visited as in any preceding year. Three hundred and nine such visits were made in 55 counties, to 62 libraries not previously reached and 19 not connected with the University. Charters were granted to 32 of the libraries visited. Five charters were amended, nine were registered as maintaining a proper standard and 180 received grants of public library money.

The inspector gave 60 lectures and addresses in communities proposing to establish public libraries, before library associations and institutes, in State and Pratt Institute library schools and at Chautauqua assembly. Nine lectures on library buildings were illustrated by stereopticon pictures.

Certificates of approved circulation. The 55 registered libraries and branches below, maintained by private corporations for free public use, received certificates of approved circulation on which to base applications for local aid by public taxation.

Certificates of approved circulation Oct. 1, 1901-Sep. 30, 1902

No.	Name of library	Certified circulation for one year
1	Albany free	35 000
2	Pine Hills branch	14 000
3	Union free	50 000
4	Unregistered branches	8 000
5	Young Men's Association	55 000
6	Pruyn branch	23 000
7	Young Men's Christian Association	7 000
8	Angelica free	5 000
9	Auburn, Seymour	33 500
10	Brooklyn, Hartnett free	12 000
11	Camden Library Association	12 000
12	College Point, Poppenhusen Institute	1 600
13	Elmira, Steele Memorial	40 000
14	Gloversville free	60 000
15	Jamestown, James Prendergast free	57 500
16	Kingston, Ponckhockie public	5 100
17	New York, Aguilar free, East Broadway branch	182 000
18	59th st. branch	170 000
19	110th st. branch	193 000
20	Av. C branch	161 000
21	Traveling libraries branch	27 500
22	Bethany Memorial circulating	4 400
23	Bronx free	12 500
24	Cathedral free circulating	76 000
25	(Public and parochial schools)	101 500
26	(Unregistered branches)	210 000
27	General Society of Mechanics and Tradesmen ..	97 000
28	Harlem	152 000
29	Hudson Guild	4 500
30	Madison Sq. Church house	6 200
31	Maimonides free	180 000
32	New York Free Circulating Library for the Blind ..	8 020
33	New York public, Bloomingdale branch	173 000
34	Bond st. branch	125 000
35	Chatham sq. branch	156 000
36	George Bruce branch	145 000
37	Harlem branch	131 000
38	Jackson sq. branch	131 000
39	Muhlenberg branch	107 000
40	Ottendorfer branch	196 000
41	Riverside branch	46 000
42	St Agnes branch	141 000
43	34th st. branch	57 000
44	Washington Heights branch ..	96 000
45	Yorkville branch	171 000
46	Traveling libraries } School libraries ... }	240 000
47	Tenement House Chapter	11 000
48	Union Settlement	11 000
49	University Settlement free	69 000
50	Webster free	133 500
51	Young Men's Benevolent Ass'n free circulating ..	67 500
52	Young Women's Christian Ass'n ..	92 000
53	Ozone Park, Queens Borough Library, Ozone Park branch ..	5 500
54	Tottenville Library Association	13 000
55	(Prince's Bay branch, unregistered)	425
Total		4 322 245

GRANTS

Grants of public library money were made during the year to 243 libraries including branches. Payments were made each month except in October 1901 and August 1902. With a single exception each grant was limited for want of funds to \$100; but, as \$200 is still allowed by ordinance, an account was kept showing the total of all applications within that limit. The amount paid was \$22,767.49, averaging \$93 to each library. Approved applications under the rule amounted to \$33,229.89 or \$10,462.40 in excess of available funds. The number of libraries receiving grants was greater by 43 than ever before.

The following tables show the monthly payments and the amount given to each library.

Public library grants Oct. 1, 1901–Sep. 30, 1902

Date	No.	Total asked	Total granted
1901—Nov.	4	68	\$11 142 09
Dec.	2	31	3 594 49
1902—Jan.	2	29	3 176 75
"		1	1 268 78
Feb.	1	25	3 295 33
Mar.	1	14	1 160 ..
Ap.	4	16	2 214 25
May	8	17	2 093 13
June	2	10	1 050 ..
July	3	19	2 133 07
Sep.	20	17	2 102 ..
Total ...	247	\$33 229 89	\$22 767 49

Deducting 4 duplicates this shows a total of 243 different libraries receiving grants.

Libraries receiving grants Oct. 1, 1901–Sep. 30, 1902

1 Adams free library.....	\$100	12 Angelica free library.....	100
2 Addison public library...	100	13 Auburn, Seymour library.	100
3 Albany free library (2 branches).....	200	14 Aurora public library.....	100
4 Albany, Union free library	100	15 Ballston Spa, public lib- rary.....	60 50
5 Albany, Y. M. C. A. lib- rary.....	100	16 Bath-on-Hudson public library.....	100
6 Albion, Swan library....	100	17 Bay Shore free library....	100
7 Alden free library.....	100	18 Belfast public library....	10 32
8 Alexandria Bay, Holland library.....	100	19 Belmont Literary and Historical Society free library.....	100
9 Alfred University library.	100	20 Bolivar free library.....	100
10 Amsterdam free library..	100	21 Bolton free library.....	50
11 Andover free library.....	100		

Libraries receiving grants Oct. 1, 1901-Sep. 30, 1902 (continued)

22 Boonville, Erwin Library and Institute.....	100	51 Crown Point, Hammond library.....	30
23 Brewster library.....	50	52 Cuba Circulating Library Association.....	100
24 Bristol free library.....	100	53 Dansville public library..	100
25 Brockport, Normal school library.....	100	54 Dryden, Southworth library.....	100
26 Brooklyn public library (17 branches).....	672	55 Dunkirk, Brooks Memorial library.....	100
27 Brooklyn, Children's Museum Library of Brooklyn Inst.....	100	56 East Chatham public library.....	51
28 Brooklyn, Hartnett free library.....	100	57 Easton, Burton library..	50
29 Brooklyn, Hebrew Educational Society library..	100	58 Elizabethtown Library Association.....	100
30 Buffalo public library (2 branches).....	200	59 Ellenville public library..	100
31 Buffalo University, medical dep't library.....	100	60 Elmira, Steele Memorial library.....	100
32 Buffalo, Grosvenor public library.....	100	61 Essex free library.....	100
33 Buffalo, Women's Educational and Industrial Union.....	25	62 Fairport public library...	50
34 Camden Library Association.....	100	63 Farmer free library.....	100
35 Canaan public library.....	25	64 Fillmore, Wide-awake Club library.....	50
36 Canandaigua, Wood Library Association.....	100	65 Forestport Literary and Social Union.....	50
37 Canaseraga, Essential Club free library.....	50	[66 Frankfort free library...	100
38 Canastota public library..	100	[67 Franklinville free library.	100
39 Canton free library.....	100	68 Fredonia, D. R. Barker Library Association...	100
40 Catskill public library....	100	69 Freeport public library...	100
41 Cazenovia Public Library Society.....	100	70 Friendship free library...	100
42 Chautauqua free library..	40	71 Fulton public library....	100
43 Chazy public library.....	100	72 Geneseo, Wadsworth library.....	100
44 Cherry Valley library.....	100	73 Ghent public library.....	75
45 Chester free library.....	100	74 Gilbertsville free library.	14
46 Claverack Free Lib. and Reading Room.....	50	75 Glen Cove public library.	100
47 Clinton, Kirkland town library.....	100	76 Glen Haven public library.....	25
48 Copake free library.....	27 70	77 Glens Falls, Crandall free library.....	100
49 Corning free library.....	100	78 Gloversville free library..	100
50 Cornwall-on-Hudson public library.....	90	79 Gouverneur Reading Room Association...	75
		80 Gowanda free library....	100
		81 Granville free library....	100
		82 Greenwich free library...	100
		83 Groton public library....	100
		84 Hamburg free library....	62

Libraries receiving grants Oct. 1, 1901-Sep. 30, 1902 (continued)

85 Hammondsport public library.....	100	118 Nanuet public library..	58
86 Harriettstown public library.....	10	119 New Berlin Library Association.....	100
87 Haverstraw, King's Daughters public library.....	100	120 New Hampton, Denton library.....	100
88 Herkimer free library....	100	121 New York, Aguilar free library (4 branches)..	400
89 Highland Falls library...	62 25	122 New York, Bronx free library.....	100
90 Hilton public library....	100	123 New York, Bryson Library, Teachers College.....	100
91 Hornellsville, Hornell Library Association...	100	124 New York, Harlem library.....	100
92 Hudson, Hendrick Hudson free library.....	100	125 New York, High Bridge free library.....	100
93 Hunter public library....	30	126 New York, Hudson Guild library.....	100
94 Ilion district library....	100	127 New York, Maimonides free library.....	100
95 Irvington, Guiteau Library.....	100	128 New York free circulating library for the blind.....	100
96 Jamestown, James Prendergast Library Association.....	100	129 New York public library, circulating dep't (13 branches).....	1 300
97 Johnstown library.....	100	130 New York, Riverdale Library Association....	50
98 Keene Center free library	62	131 New York, Tenement House Chapter library	100
99 Keene Valley public library.....	52	132 New York, University Settlement free library	100
100 Keuka College and Institute.....	100	133 New York, Webster free library.....	100
101 Kingston city library....	100	134 New York, Y. M. B. A. free circulating library	100
102 Kingston, Ponckhockie public library.....	100	135 New York, Y. W. C. A..	100
103 Lake Placid public library.....	57	136 Newark free public library.....	100
104 Liberty public library..	40	137 Newark Valley public library.....	100
105 Lockport public library.	100	138 Newfield public library..	60
106 Lodi Whittier library...	50	139 Niagara Falls public library.....	100
107 Long Island City, Queens borough (7 branches).	700	140 Nineveh public library..	100
108 Malone, Wadhams reading circle.....	100	141 North Tonawanda public library.....	100
109 Marathon, Peck Memorial.....	100	142 Nyack library.....	100
110 Marlboro Library.....	25	143 Ogdensburg public library.....	100
111 Mayville, Tuesday Club.	100		
112 Mellenville public library	25		
113 Middletown library.....	100		
114 Millbrook free library....	100		
115 Mohawk public library..	50		
116 Montour Falls free library.....	25		
117 Morristown public library	75		

Libraries receiving grants Oct. 1, 1901-Sep. 30, 1902 (concluded)

144 Olean, Forman library..	100	177 Seneca Falls Library As-	
145 Oneonta public library..	100	sociation	100
146 Ossining public library..	100	178 Shelter Island public li-	
147 Oswego, State Normal		brary.....	100
School library.....	100	179 Sidney public library...	100
148 Ovid free library.....	100	180 South Dansville, Ladies	
149 Oxford Memorial library	100	free library.....	50
150 Oyster Bay free library..	100	181 South Otselic public li-	
151 Palmyra King's Daugh-		brary.....	75
ters free library.....	100	182 Southampton, Rogers	
152 Penn Yan public library	100	Memorial library.....	100
153 Philmont public library..	93 13	183 Springfield free library..	35
154 Piermont free library...	100	184 Springville public library	100
155 Pine Bush library.....	100	185 Stockton, Mary E. Sey-	
156 Plattsburg public library	100	mour Memorial free	
157 Pleasantville Library As-		library.....	100
sociation	46 81	186 Syracuse public library..	1 368 78
158 Port Henry, Sherman		187 Ticonderoga public li-	
free library.....	100	brary.....	100
159 Port Jervis, Minisink		188 Tonawanda public li-	
Valley Historical So-		brary.....	100
cietv library.....	50	189 Tottenville Library As-	
160 Port Jervis free library..	100	sociation	100
161 Portchester library.....	100	190 Troy children's circulat-	
162 Portville free library....	50	ing library.....	100
163 Randolph, Chamberlain		191 Troy, Y. W. A. library..	50
Institute	100	192 Union Springs, Spring-	
164 Remsen, Didymus Thomas		port free library.....	25
library.....	100	193 Utica public library.....	100
165 Riverhead free library..	100	194 Vernon public library...	100
166 Riverhead, Roanoke pub-		195 Walden public library...	100
lic library.....	20	196 Warrensburg, Richards	
167 Rockville Center public		library.....	100
library.....	100	197 Waterford public library	100
168 Rome, Jervis Library		198 Waterloo Library and	
Association.....	100	Historical Society.....	100
169 Round Lake, Woman's		199 Waterville public li-	
Round Lake Improve-		brary.....	100
ment Society.....	55	200 Watkins public library..	100
170 Salem, Bancroft public		201 West Winfield free li-	
library.....	100	brary.....	50
171 Saratoga Springs public		202 Westbury, Green Wood	
library.....	100	public library.....	10
172 Saugerties public library	100	203 Westfield, Patterson li-	
173 Schenectady, Union Col-		brary.....	100
lege library.....	100	204 Yonkers, Women's In-	
174 Schuylerville free library	100	stitute library.....	100
175 Sea Cliff public library..	100		
176 Seaford, De Lancey			
Floyd Jones free library.....	75		

Support of free libraries. Of 319 public and free libraries connected with the University 243 have received during the year state grants for buying books and only 176 have been aided by local taxation. There are 30 other free libraries in the State of which five received money from taxation. In only a very few instances outside large cities has adequate support been given to free libraries at public expense. What the cities have done may be learned from the table of "Libraries in cities" on page 227. In most other places they are left to the care of their friends with such help as the State gives. There are possibly 35 free libraries which receive some income from investments. There are less than 10 whose needs are sure to be met by their endowments or by continued liberality of their founders. Libraries not adopted as a public charge are usually kept in operation by voluntary associations, through private contributions and gifts.

But there are evidences of progress. The public contribution is increasing year by year. Slowly but surely the conviction is gaining ground that the public library ought to be a public charge and that those who have made sacrifices to maintain it should as quickly as possible be relieved of their burden. This view of the matter has been emphasized by the wise course of Andrew Carnegie in offering his library gifts only on condition that one tenth as much as the sum given shall yearly be pledged by the municipality or district for maintenance.

But still nearly half the reports of libraries founded for public benefit, approved by the State and supplying books freely to all readers give no indication that this service is recognized by any public payment from the community enjoying the privileges. The injustice of such conditions is manifest. Grants by the State to aid in buying books have had a strong influence in increasing public interest in libraries. But these grants were never intended to give adequate support, or to do more than set an example, establish the principle of public obligation and encourage each locality to do its obvious duty. While there is strong argument for the State to increase its present bounties on account of the impulse thereby given to public sentiment for good reading for the people, the argument is far stronger for greatly increased contributions from local taxation. Those who have done so much

already for their neighbors by gifts can do much more if they can persuade them to make this a common and permanent enterprise sustained liberally by tax.

Cooperative local support. Occasionally residents of outlying districts claim that they should have free use of the public library in a neighboring village because it receives money from the state treasury contributed by all taxpayers alike. The law gives no such right. The state money is a small part of total cost, and can be used only for buying books, and then only when an equal amount from local sources is spent on books. Residents outside the village, district or town paying for the library have no legal rights whatever to use its books, but the law does provide that its "trustees may under such conditions as they think expedient extend the privileges of the library to persons living outside such locality." This is oftenest done by charging a small fee, just as high schools admit outside students on payment of tuition. We have pointed out before that it is very desirable for the central community to open its library to the rural population round it. It attracts them to the village where they will do their shopping, establishes friendly relations, and is from a business standpoint a wise measure. This idea is steadily spreading. In 1901 the library law was altered to read:

A municipality or district named in this section may raise money by tax to establish and maintain a public library, or libraries, or to provide a building or rooms for its or their use, or to share the cost as agreed with other municipal or district bodies, or to pay for library privileges under a contract therefor.

This provides clearly for what is often found to be the best method, a contract which shall give all the citizens the free use of the library for a definite payment made from public funds. The best way is, usually, to have the town establish and maintain the library for the benefit of the entire township. Often this is impracticable from lack of interest or because of local dissensions or political reasons affecting the town meeting, while the school district or village is more anxious for the library and able to maintain it. Sometimes the difficulty is because instead of one center for the township on which all would be agreed, there are in it two or more villages, each of which wishes the town

library to be located there. In these cases the measure is apt to be defeated unless the privileges are fairly distributed by means of branches in each village having a fair claim. In a typical case a large township has a single village at the center. This village corporation includes only part of the school district which established the public library before the village was incorporated. The farmers residing in the town would like to use the library without paying a separate fee. What is the best solution? Nine tenths of the taxes in this town are paid by the district and nine tenths of the district taxes are paid by village residents. At the district meeting only those attend as a rule who feel warmly interested in the schools and who are therefore the more intelligent and progressive citizens and most likely to support the library. At village and town elections there is a much larger element of local politics to be reckoned with and some would feel that election of library trustees and making appropriations were more safely left to the district meeting. The friends of the library would naturally prefer it to be controlled by whichever of the three bodies would be most sympathetic and liberal in its support. Under the new law for contract, if the village or district controls the library the town board may vote to pay its fair proportion toward library support, possibly only \$100 or \$200 a year on a contract agreed to by the village. This would settle the legal right of every resident to use the library, and real cost to outsiders would be very small; e. g. if \$1000 a year were spent on the library for total expenses and the town voted to pay \$100 a year under contract, the real cost to those outside the village lines would be only \$10 since nine tenths of the assessed valuation of the town is within the village. The trustees representing the village would see the practical advantage to them of liberal treatment of the citizens outside, whom they would wish to attract to the village, and the contract plan provides an easy solution to the difficulty with very little financial objection.

Statistics of public libraries division 1892-1902

Year ending Sep. 30	LIBRARIES				Transfers	Certificates of approved circulation	Visits of inspection	GRANTS	
	Chartered	Admitted	Registered	Total				No.	Amount
1892.....	2			2					
1893.....	25	2		27	20		55	40	\$6 341 74
1894.....	26	6	1	33	14	3	62	62	10 351 92
1895.....	24	10	20	54	18	6	115	86	14 399 03
1896.....	24	3	15	42	15	18	134	92	13 746 44
1897.....	17	1	20	38	4	22	115	146	24 254 51
1898.....	11		9	20	2	26	104	154	24 536 66
1899.....	21	1	15	37	1	31	140	183	29 292 32
1900.....	25	1	7	33	4	74	141	173	26 891 43
1901.....	23		13	36	7	55	151	200	19 599 51
1902.....	34		11	45	14	55	309	243	22 767 49
Duplicates and withdrawn.....	42	1	4	47					
Total.....	190	23	107	320	99	290	1 326	1 379	\$192 181 05

LIBRARY PROGRESS

Comparative summaries. In the following table, totals of reports made to the Regents by 1137 libraries of 200 volumes or more are compared with totals of similar reports of preceding years since organization of this division in 1892.

Comparative summary of all librarians reporting 1893-1902

YEAR	No. of libraries	VOLUMES		Circulation
		Added	Total	
1893.....	600	225 195	3 851 943	3 136 602
1894.....	704	246 751	4 133 378	3 619 178
1895.....	723	258 741	4 392 999	4 156 744
1896.....	806	296 498	4 647 661	5 008 402
1897.....	869	324 687	4 934 889	5 814 470
1898.....	938	373 615	5 393 106	7 248 249
1899.....	985	441 964	5 846 519	8 372 333
1900.....	1 035	483 561	6 217 980	8 760 678
1901.....	a1 137	616 941	6 796 241	10 227 735
1902.....	1 137	464 751	6 975 540	10 984 625

a 25 registered branches counted for the first time in 1901.

In the above table, circulation of libraries free to a limited class, as school, Y. M. A. libraries and those requiring a subscription fee, is included with circulation of libraries free to all. In the next table only free lending libraries are given.

Free lending libraries 1893-1902

YEAR	LIBRARIES		CIRCULATION			
	No.	Volumes	Total	Per day	Per 1000 population	Per 100 vol.
1893.....	238	849 995	2 293 861	6 285	352	269
1894.....	293	1 049 869	2 766 973	7 581	425	263
1895.....	309	1 127 199	3 146 405	8 620	483	279
1896.....	351	1 313 299	3 933 623	10 777	604	300
1897.....	375	1 446 874	4 904 793	13 438	753	339
1898.....	408	1 755 036	6 439 999	17 644	989	367
1899.....	431	1 979 319	7 395 527	20 262	1 135	373
1900.....	460	2 187 125	8 452 445	23 157	1 163	387
1901.....	529	2 425 260	9 232 697	25 350	1 270	381
1902.....	550	2 598 472	10 063 703	27 571	1 385	387

a 25 registered branches counted for the first time in 1901.

Growth. The libraries reporting are 1137, the same number as last year. The number of libraries in the State is certainly larger, but reports have not been received from all, the deficiency being among school libraries.

The table of free lending libraries shows a gain of 21 or 4%, an increase in volumes of 173,212 or 7%, and in circulation of 831,006 or 8%, an average daily advance of 2221. The total free circulation was 10,063,703, an average of 27,571 daily, 387 for each 100 volumes in those libraries and 1385 for each 1000 population. There has been a constant increase for nine years in almost every item given, the only exception being in ratio of circulation last year to volumes on hand. As volumes accumulate this must be expected and the wonder is that the falling off was so very slight, and that the percentage has again reached the highest mark.

Statistics in the above table are separated below into free lending libraries under state inspection and not under such inspection. Under the first head are included 240 academic and high school libraries reported free for circulation.

Inspection of free lending libraries 1893-1902

Year.	UNDER INSPECTION				NOT UNDER INSPECTION			
	No.	Volumes	CIRCULATION		No.	Volumes	CIRCULATION	
			Volumes	Per 100 vol.			Volumes	Per 100 vol.
1893.....	201	404 616	796 258	196	37	454 619	1 497 603	329
1894.....	236	540 733	1 021 924	189	57	509 136	1 745 049	342
1895.....	257	612 533	1 242 284	203	52	514 666	1 904 121	370
1896.....	315	789 942	2 149 027	272	36	523 357	1 784 596	341
1897.....	339	1 038 618	4 003 021	385	36	408 256	1 044 431	255
1898.....	373	1 310 081	5 342 870	407	35	444 955	1 097 129	246
1899.....	397	1 697 439	6 792 172	400	34	281 880	603 355	214
1900.....	431	1 906 469	7 859 428	412	29	280 656	593 017	211
1901.....	a491	2 130 788	8 546 171	401	38	294 472	686 526	233
1902.....	521	2 314 414	9 435 226	407	29	284 058	628 477	221

a 25 registered branches counted for the first time in 1901.

When our work started 10 years ago the libraries not under our inspection with about the same number of volumes had double the circulation of the libraries which we began to help. In 1902 our libraries circulated 9,435,226 against 628,477 by the outside libraries or over 15 times as many or a thirtyfold better showing than 10 years ago. After making all allowance for modifying conditions we have the strongest possible evidence of the wisdom of our plans and the efficiency of their execution. Yet we feel every year the pressing need of more men and means to do the practical work which we find to be greatly needed all over this great State before we can say that its citizens are even fairly supplied with the best reading.

Libraries in cities. The table below shows library resources in each of our 42 cities and amount paid from taxation for free circulation of books. In two cities there is no library free for circulation, though one has a good library free for reference. In five cities nothing was paid by tax for support of free libraries and in some others the amount was extremely small. Only 22 cities, out of 42, paid more than \$1000 for this purpose.

In view of the number of gifts accepted from Mr Carnegie, payments for library privileges by some of these cities will be considerably increased another year. The increase in Amsterdam will be from \$400 to \$2500, in Binghamton from \$2311.39 to \$7500, in Kingston from \$109.50 to \$3000, in Gloversville from \$3000 to

\$5000, in Johnstown from \$602.56 to \$2500 and in Yonkers from \$2000 to \$5000.

Free libraries in cities

City	Population in 1900	Volumes in free libraries	Circulation	Library taxation for 1902
Albany.....	94 151	42 529	272 802	\$11 300 ..
Amsterdam.....	20 929	5 479	44 084	400 ..
Auburn.....	30 345	43 448	34 532	2 000 ..
Binghamton.....	39 647	15 322	67 146	2 311 39
Buffalo.....	352 387	175 838	966 450	78 647 70
Cohoes.....	23 910	a 4 067	a 20 240	a 416 66
Corning.....	11 061	8 838	1 800	800 ..
Cortland.....	9 014	.....	.....	.....
Dunkirk.....	11 616	7 462	34 575	1 410 20
Elmira.....	35 672	7 965	44 559	2 000 ..
Geneva.....	10 433	6 818	32 349	733 32
Gloversville.....	18 349	20 263	60 136	3 000 ..
Hornellsville.....	11 918	13 300	31 993	1 500 ..
Hudson.....	9 528	4 664	17 849	300 ..
Ithaca.....	13 136	25 000	44 389	.....
Jamestown.....	22 892	24 607	80 318	735 98
Johnstown.....	10 130	4 746	21 831	602 56
Kingston.....	24 535	8 061	37 616	109 50
Little Falls.....	10 381	5 645	14 900	502 37
Lockport.....	16 581	7 900	18 433	700 ..
Middletown.....	14 522	9 154	48 646	2 600 ..
Mount Vernon.....	20 346	10 019	52 037	3 500 ..
Newburg.....	24 943	28 337	87 416	3 255 24
New Rochelle.....	14 720	19 709	52 247	6 000 ..
New York.....	3 437 202	942 911	5 492 400	305 894 25
Manhattan borough.....	1 850 093	652 374	4 119 603	195 072 42
Bronx borough.....	200 507	10 153	26 940	.....
Brooklyn borough.....	1 166 582	228 681	1 183 497	99 900 06
Queens borough.....	152 999	40 188	145 569	10 000 ..
Richmond borough.....	67 021	11 515	16 791	921 77
Niagara Falls.....	19 457	11 636	76 148	7 000 ..
North Tonawanda.....	9 069	5 142	17 818	1 000 ..
Ogdensburg.....	12 633	10 736	19 282	1 750 ..
Olean.....	9 462	.....	.....	.....
Oneida.....	6 364	6 330	15 620	500 ..
Oswego.....	22 199	7 416	19 934	.....
Poughkeepsie.....	24 029	28 637	80 516	8 739 22
Rensselaer.....	7 466	2 500	10 676	350 ..
Rochester.....	162 608	84 751	151 063	2 000 ..
Rome.....	15 343	13 549	45 569	1 500 ..
Schenectady.....	31 682	a 9 457	a 46 328	a 1 500 ..
Syracuse.....	108 374	107 307	140 369	30 776 24
Troy.....	73 246	42 767	63 283	.....
Utica.....	56 383	33 934	136 071	10 000 ..
Watertown.....	21 696	4 535	15 000	612 45
Watervliet.....	14 321	943	1 465	157 77
Yonkers.....	47 931	21 244	82 357	2 000 ..

New York city. Details of all circulating libraries in New York city are here given as having a special interest. A process of consolidation is now going on which has already brought two strong libraries into the relation of branches with the New York Public Library. Others will doubtless follow the same course in the next few years. As the Carnegie branch buildings are completed, it is likely that aid from city taxation will be confined to the New York Public Library and its branches for Manhattan, Bronx and Richmond borough. In this table libraries are arranged in each borough in order of size of circulation. The total increase in the city for the year is 76,865 volumes or 9%, and the increase of circulation 768,676 or 16%, making a total circulation of 5,492,400 or more than half the entire free circulation in the State.

Volumes and circulation of free lending libraries in New York city
July 1, 1901-June 30, 1902

NAME OF LIBRARY	Volumes	Circulation
<i>Manhattan and Bronx</i>		
New York public circulating department (13 branches) . .	218 818	2 014 653
Aguilar free	82 619	769 458
Cathedral free circulating	61 943	408 948
Maimonides free	75 716	194 596
Harlem	26 014	164 905
Webster free	13 178	140 672
General Society of Mechanics and Tradesmen	105 831	104 354
Young Women's Christian Association	30 103	96 546
Young Men's Benevolent Association	4 425	74 908
University Settlement free	? 6 000	72 848
Bronx free	? 2 680	13 189
College Settlement	2 769	12 475
De Witt Memorial	2 450	12 158
Tenement House Chapter	2 267	11 642
Union Settlement	2 001	11 430
Kingsbridge Library Association	1 855	9 860
New York Free Circulating Library for the Blind	1 960	8 020
Madison Sq. Church house	? 2 500	6 650
Hudson Guild	? 1 300	4 861
Bethany Memorial circulating	1 811	4 685
Olivet Church	3 175	4 639
High Bridge free	? 605	2 866
Foreign Missions	7 494	1 155
Riverdale Library Association	5 013	1 025
Total	662 527	4 146 543

Volumes and circulation of free lending libraries, etc. (continued)

NAME OF LIBRARY	Volumes	Circulation
<i>Brooklyn</i>		
Brooklyn public (17 branches).....	144 954	944 128
Pratt Institute free.....	73 375	192 973
Hebrew Educational Society.....	4 689	29 457
Hartnett free.....	3 446	12 936
Asacog Club.....	1 430	3 803
Public School No. 119.....	787	200
Total.....	228 681	1 183 497
<i>Queens</i>		
Long Island City (Queens borough, 8 branches).....	34 592	140 605
Jamaica High School.....	2 305	3 236
College Point, Poppenhusen Institute.....	3 291	1 728
Total.....	40 188	145 569
<i>Richmond</i>		
Tottenville Library Association.....	2 236	13 791
New Brighton, Staten Island Academy.....	9 279	73 000
Total.....	11 515	16 791
<i>Summary</i>		
Boroughs of Manhattan and the Bronx.....	662 527	4 146 543
Borough of Brooklyn.....	228 681	1 183 497
" Queens.....	40 188	145 569
" Richmond.....	11 515	16 791
Total.....	942 911	5 492 400

Administration. The following libraries report that the work of classification or cataloguing or both, in some cases a complete reorganization, is in progress or completed:

Cazenovia public	Oakfield High School
Coxsackie High School	Richfield Springs High School
Ithaca High School	Rockville Center public
Lake Placid public	Sherburne public
Lawrence High School	Sidney public
Lockport public	South Glens Falls High School
Luzerne High School	Spring Valley High School
Middleville Union School	Troy High School
Mt Kisco High School	Warrensburg High School
New York, Y. M. B. A.	Warwick, Y. M. C. A.
Niagara Falls, De Veaux School	West Point, United States Military Academy
Northport High School	

LIBRARY Public unless otherwise specified	From	Gift	For	Notes
Albany, N. Y. State L.	Walter Stanley Biscoe..... Miss Ellen Campbell.....	Books, etc..... Books, etc.....	.....	1356 vols. and 9328 pams. Duncan Campbell collection of 3295 vols. 899 pams. 49 ms and 493 plates etc.
Albany public.....	Andrew Carnegie.....	\$150 000	Buildings.....	Declined first by council, then by popular vote
Ansterdam.....	Andrew Carnegie.....	25 000	Building	Accepted
Auburn Theol. Sem. . .	A. J. Upson L.H.D. D.D. L.L.D.....	8 000	Books.....	Income only to be used. Available at death of Mrs Upson
Bay Ridge free.....	Norris L. M. Bennett.....	500	.....	Accepted
Binghamton.....	Andrew Carnegie.....	75 000	Building	382 vols.
Brooklyn Inst. Mus'm.	Dr James Cruikshank.....	Books.....	.....	339 vols.
Brooklyn Library.....	Maria Sprague Meeker.....	Books.....	.....	374 vols. from his estate
Brooklyn, L. I. Histori- cal Society.....	Thomas G. Shearman..... Popular subscription.....	\$17 430	Special endow- ment fund.....	Largest subscriptions: Wilhelmus Mynderse and John J. Pierrepont each \$5000; Frank S. Benson \$1100; Charles A. Hoyt, Frank Lyman and Henry K. Sheldon each \$1000 ; \$3300 given in sums less than \$500 Purple collection of 4169 vols. and 14,492 pams. and periodicals Watson collection of 4100 vols. and 1929 pams. and periodicals 2041 vols. and 7987 pams. and periodicals 1015 vols. and 8043 pams. and periodicals 838 vols. and 12,855 pams. and periodicals 471 vols. and 1790 pams. and periodicals 393 vols. and 3984 pams. and periodicals 362 vols. and 42 pams. 288 vols. and 731 periodicals 289 vols. and 1045 pams. and periodicals
Brooklyn, Medical Soc. of the Co. of Kings. . .	12 Brooklyn physicians..... " " L. I. Hist. Society..... N. Y. Acad. of Medicine..... Mrs Alexander J. C. Skene..... Dr Charles De Szigethy..... Dr Joseph H. Hunt..... Mrs E. N. Chapman..... Bristol (England) Med. Lib..... Northern Disp. of N. Y. city.....	Books, etc..... " " " " " " " " " "	 " " " " " " " " "	

Brooklyn Y. M. C. A.	George Foster Peabody	\$500	Books	Not fiction
" Y. W. C. A.	" "	100	" "	
" "	John Gibb	100	" "	Collection exhibited at Pan-American Expos'n
Buffalo	Mexican government			Collection of insects and pressed ferns and flowers
Camden Lib. Ass'n	Dr Louis Bower			For the above collection
	W. J. Frisbie	Cabinet		Available at death of her husband
Canandaigua, Wood Lib	Mrs Emma Young	\$200		Declined by popular vote
Canastota	Andrew Carnegie	10 000	Building	Accepted
Canton	" "	10 000	"	
Chatham	" "	30 000	"	
Chazy	Edmond Seymour	15 000		Accepted
Fulton	Andrew Carnegie	1 000	Building	$\frac{1}{2}$ for equipment of building and $\frac{1}{2}$ for books
Gloversville	" "	15 000	"	Increasing former offer of \$25,000. Accepted
Grahamsville, Daniel		50 000		
Pierre Lib.	Daniel Pierce	Building		Cost \$3300
Griffin's Corners, Skene	Andrew Carnegie	\$5 000	Building	No condition except that library be a memorial to Dr A. J. C. Skene, of Brooklyn. Accepted
Mem. Lib.				543 vols.
Hamilton, Colgate				435 vols.
University	Joseph Spencer Kennard D.C.L.	Books		
	Prof. P. B. Spear D.D.	" "		
Irvington, Guiteau Lib	Frederick W. Guiteau	\$10 000	Books	
Islip	Andrew Carnegie	10 000	Building	
Johnstown	" "	5 000	"	
Kingston	" "	30 000	"	In addition to former gift of \$20,000. Accepted
Marathon, Peck Mem.				Accepted
Lib.	J. Stewart Wells	125	Books	
Milton, Sarah Hull				
Hallock Free Lib	Miss C. H. Tuttle	Desk		
Mount Vernon	Andrew Carnegie	\$15 000	Building	In addition to former gift of \$35,000. Accepted
Naples	D. H. Maxfield	1 000		To establish a library in connection with the high school; memorial to his father, Hiram Maxfield

a Rooms for Guiteau Library were decorated and furnished by Miss H. M. Gould at a cost of \$9000.

LIBRARY Public unless otherwise specified	From	Gift	For	Notes
New Berlin Lib. New Rochelle.....	Andrew Carnegie.....	Books..... \$50 000	Building	2 private libraries, 680 vols. Unaccepted because library quarters for 10 years and leaseor refuses to release the library
Newark.....	Henry C. Rew.....	Window.....		Value \$1500. Memorial to his wife
Norwich.....	Mrs Jane M. Guernsey.....			Real and personal property
Nyack.....	Andrew Carnegie.....	\$15 000	Building.....	Accepted
Oneida.....	"	11 000	"	Accepted
Penn Yan.....	Mr and Mrs H. K. Armstrong. Charles Curtis.....	1 500 2 500	"	Provided \$10,000 be raised for the purpose To be memorial to his wife
Pine Hill.....	Henry Morton.....	Building.....		40 vols.
Pittsford High School.	Mrs R. O. Crump.....	Books.....		In addition to a previous gift of \$20,000
Port Jervis.....	Andrew Carnegie.....	\$10 000	Building.....	Accepted
Poughkeepsie, Vassar College.....	Mrs F. F. Thompson.....		Building.....	In memory of her husband. Amount not stated
Rome, Jervis Lib. Ass'n.....	Heirs of R. J. Beach. Popular subscription.....	Books..... \$1 500		480 vols. Through efforts of Mrs Clarence Mackay
Roslyn L. I. William Cullen Bryant Lib..	Mrs Clarence Mackay.....	Books.....		About 1000 vols. from Mr Bryant's Cedarhurst Library
Sandy Hill.....	Andrew Carnegie.....	\$10 000	Building	Rejected
Saratoga.....	"	20 000	"	
Schenectady.....	John E. Ellis.....	10 000		
Schenectady, Union College.....	Andrew Carnegie.....	40 000	"	
Schuylerville free.....	Andrew Carnegie.....	10 000	Building	For remodeling Nott Memorial Hall Rejected
Skaneateles Lib. Ass'n.	Mrs S. H. Hurd and Mrs R. M. Grinnell.....	300		
Syracuse Univ.....	Theodore Irwin.....	\$500 and books.		Set of the <i>Jesuit Relations</i> , 73 vols.

LIBRARY Public unless otherwise specified	From	Gift	For	Notes
Columbia University (continued)	Prof. Arthur N. Brown.....	<i>New York city</i> Books etc.....	(continued)	Over 200 vols. of books & mss rel. to Spanish- American countries
Cooper Union Lib.....	Oswald Ottendorfer.....	\$20 000 Books.....	Special fund	700 vols. The library of the late Dr W. H. Bowlsby
Gen. Soc. of Mech. and Tradesmen Lib. N. Y. Hist. Soc. Lib.	Charles B. Haughian..... Various persons.....	\$4 750 105 000	Building.....	\$15 000 from Miss Matilda Wolfe Bruce; \$1000 or more each from William K. Vanderbilt, Charles A. Sherman, Mrs Frederick F. Thompson, William C. Schermerhorn, Miss Caroline Phelps Stokes, Nicholas Fish, Mrs Caroline Frederick Hoffman, Frederick Wen- dell Jackson, Henry Phipps, Dean Hoffman, Daniel Parrish jr, Miss Charlotte A. Mount and Miss Susan Mount
N. Y. Press Club.....	Andrew Carnegie.....	5 000	Books.....	2409 vols. and 2480 pams. on economics, statis- tics etc.
N. Y. public.....	Mrs Simon Sterne.....	Books etc.....		1560 vols. and 1487 pams.
	H. V. and H. W. Poor.....	"		520 vols. and 50 pams. The John Robinson collection
	Mrs Henry Draper.....	"		511 vols.
	L. I. Hist. Society.....	Newspapers.....		900
	Charles B. Curtis.....	Prints.....		909
	R. H. Storer.....	"		628
	James D. Smillie.....	"		400
	S. P. Avery.....	"		The final sum of a bequest which amounts to
N. Y. Society Lib.....	Charles H. Contoitt.....	\$5 000		\$142,504.86
		Books.....		850 vols. from the library of the late John R. Broadhead

N. Y. University.....	William F. Havemeyer .....	"	.....	2485 vols.	Some of them are rare
	Miss Helen Miller Gould.....	"	.....	2363 vols.	
	Hon. Oswald Ottendorfer....	"	.....	1685 vols.	of German literature
	Rev. Charles R. and Prof. W. K. Gillett .....	"	.....	1398 vols.	
	Council of N. Y. University...	"	.....	619 vols.	of American history
	Prof. John James Stevenson..	"	.....	256 vols.	
	Mrs A. B. Smith.....	"	.....	253 vols.	
Riverdale Lib. Ass'n...	Samuel I. Babcock.....	Land.....	Site.....	3 lots valued at \$4500	

Summary, by states and countries, of gifts and bequests to libraries

	No.	Gifts in money	Money for buildings etc.	Books	Miscellaneous	CARNEGIE GIFTS	
						No.	Am'ts
American Library Ass'n.	1	\$100 000				1	\$100 000
Maine.....	18	8 000	\$128 000	1 000 vols.		2	40 000
New Hampshire.....	14	8 000	850 000	3 300 vols.		4	65 000
Vermont.....	27	47 954	218 000	2 980 vols.		1	50 000
Massachusetts.....	96	810 925	785 150	8 988 vols.	Art works etc.....	8	200 000
				1 567 pams.			
Rhode Island.....	10	183 500		1 810 vols.	Mss.....	1	20 000
Connecticut.....	26	235 788 85	98 000	4 583 vols.	2927 prints etc.....	24	671 000
New York.....	99	124 780	790 000	82 830 vols.	Mss etc.....	2	75 000
				68 836 pams.	Babylonian cylind- ders etc.....	5	190 000
New Jersey.....	28	64 000	357 580	14 997 vols.	Babylonian cylind- ders etc.....	2	85 000
Pennsylvania.....	27	32 075 01	415 000	2 852 pams.	Portraits etc.....	2	85 000
				6 265 vols.	Art books.....	2	85 000
Delaware.....	5	4 272 61		2 000 vols.			
Maryland.....	6		47 575 63	865 vols.			
District of Columbia.....	4	60 000		3 484 pams.			
				841 vols.			
Virginia.....	8		115 000	18 000 vols.			
West Virginia.....	5		60 000		Collect'n of books	8	55 000
North Carolina.....	4	550	55 000		Bust.....	2	35 000
South Carolina.....	1						
Georgia.....	10	1 000	110 000	4 815 vols.			
Florida.....	3		90 000				
Kentucky.....	8	445 000		500 vols.			
Tennessee.....	5	6 000	165 000				
Alabama.....							
Mississippi.....							
Louisiana.....	8		10 000	260 vols.		1	10 000
Texas.....	18	7 000	210 525			6	120 000
Arkansas.....							
Oklahoma Territory.....	2		26 000			2	26 000
Indian Territory.....							
Ohio.....	20	41 689	742 000	15 673 vols.		13	561 000
Indiana.....	34	3 300	328 000			19	295 000
Illinois.....	29	29 048	620 000	2 404 vols.		11	198 000
				189 pams.			
Michigan.....	11	914 500		500 vols.		10	914 000
Wisconsin.....	44	84 250	455 500	6 839 vols.	Electroliter.....	15	852 000
				550 pams.			
Minnesota.....	12	2 500	194 000			5	74 000
Iowa.....	41	25 177 44	346 500	5 500 vols.		21	327 500
Missouri.....	9	8 500	40 000	11 529 vols.	100 framed photos.	1	40 000
				17 958 pams.			
North Dakota.....	8		55 000			3	55 000
South Dakota.....	3		30 000			3	30 000
Nebraska.....	7	8 000	105 000	350 vols.	cow statue.....	4	105 000
Kansas.....	18	1 800	193 000	250 v. etc.		8	183 000
Montana.....	10	6 000	122 500			6	102 500
Wyoming.....							
Colorado.....	5		880 000			5	880 000
New Mexico.....	1		10 000			1	10 000
Arizona.....							
Utah.....	2	1 500					
Nevada.....	1		15 000			1	15 000
Idaho.....	2	700		1 000 vols.			
Washington.....					library building	7	135 000
Oregon.....							
California.....	16	4 500	160 000	6 650 vols.			
				2 000 pams.			
Porto Rico.....	2		160 000			2	160 000
Cuba.....	2		250 000	3 000 vols.	portraits.....	1	250 000
Dominion of Canada.....	22	30 000	491 500			18	491 500
Newfoundland.....	1		50 000			1	50 000
England.....	2		50 000			2	50 000
Ireland.....	1		25 000			1	25 000
Scotland.....	9		513 500			8	513 000

Summary by sections of the country etc.

American Library Ass'n.	1	\$100 000				1	\$100 000
North Atlantic Division.....	345	984 972 86	\$3 086 650	58 633 vols.	2927 prints etc.....	47	1 311 000
				72 865 pams.			
South Atlantic Division.....	41	55 822 61	492 375 63	25 011 vols.	portraits etc.....	14	235 000
				3 484 pams.			
South Central Division.....	81	458 000	411 525	760 vols.		17	716 000
North Central Division.....	226	1 063 752 44	3 014 000	42 395 vols.	statue etc.....	118	3 144 500
				18 647 pams.			
Western Division.....	38	12 700	687 500	7 650 vols.		20	642 500
				2 000 pams.			
Colonial.....	2		160 000	3 000 vols.		2	160 000
Total.....	684	\$2 675 247 91	\$7 882 050 63	174 669 vols.		214	\$5 359 000
				97 016 pams.			
Cuba.....	2		250 000	3 000 vols.		1	\$250 000
British America.....	23	30 000	511 500		portraits.....	19	541 500
Foreign.....	12		588 500			1	453 500
Grand total.....	721	\$2 705 247 91	\$9 242 050 63	177 669 vols.		234	\$7 604 000
				97 016 pams.			

Library buildings. The gifts of Andrew Carnegie and other liberal and farsighted benefactors of the people have aroused everywhere a wonderful interest in library buildings. To an extent unknown before architects have given renewed study to the problems of useful and artistic library arrangement, and librarians have pressed on their notice the demands of convenient and economical administration. This department has received requests from all parts of the country for information on the general subject and for building plans suited to various types of libraries. Many such plans have also been submitted for criticism and suggestion. The large collection of plans in the State Library and the systematic study of the subject in the Library School has given us special facilities for answering such requests. Yet the various conditions existing; conditions of size, location, cost, character of library and of the community, have made each request a distinct problem to be answered by itself.

It was so difficult to indicate a successful building that would furnish a model for each case presented, that it seemed more helpful to state some rudimental principles to guide each inquirer to a satisfactory result. The following simple statement accompanied by a sketch of a library arrangement in one room was accordingly prepared for use in correspondence.

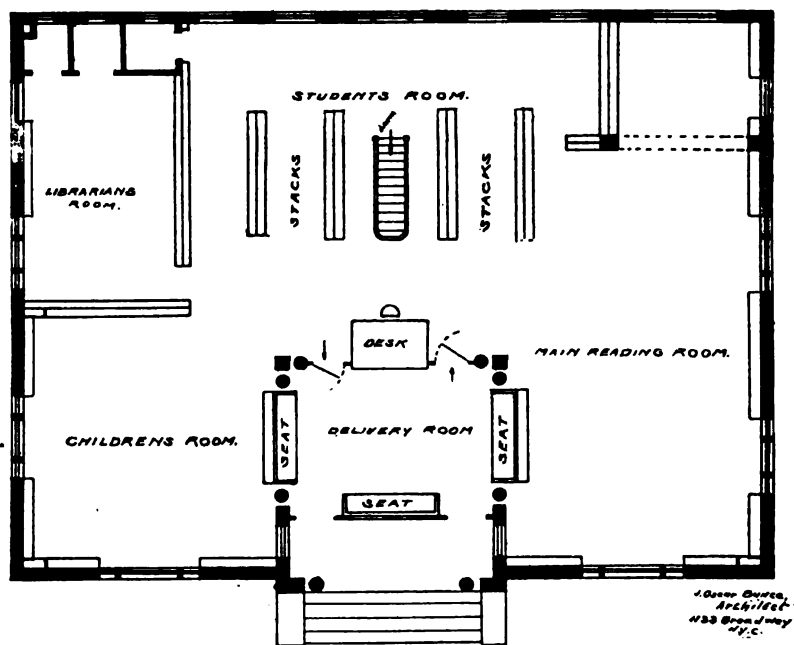
LIBRARY BUILDINGS OF MODERATE SIZE

The rapid growth of a public library requires liberal provision for the future. The number of volumes and the annual increase for not less than 20 years should be carefully estimated and room provided. In general, the library building should have in front, two ample reading rooms with a wide passage between. If stairs are needed, they can be arranged in a porch projecting somewhat to the front. The central passage should end in a book room wide enough to overlap both reading rooms and having direct access to each. A delivery desk may be at the end of the central passage with a narrow gate on each side of it, one for entrance, the other for exit, if public access to shelves is to be allowed as in most cases.

The size of the book room will depend on the estimated number of books. If the walls are insufficient for the needed shelves, a few double faced bookcases may be placed on the floor 5 ft apart, ranging from front to rear. An open space behind these cases, with small tables set between the rear windows will give a convenient place for study or work. A librarian's room, closets or an

extension of the reading room may fill out the spaces on each side of the book room so that the exterior side lines of the building shall continue to the rear line without break and thus secure the utmost economy of construction. The ceiling of the book room should be high enough (at least 14 feet) to give room for two stories of bookcases when needed. It is desirable also to have the use of a dry basement under the book room with direct stairway between to hold the overflow of books not in much demand. This will be a great relief from overcrowding and with the avail-

PLAN FOR A ONE ROOM LIBRARY



MAIN FLOOR PLAN.

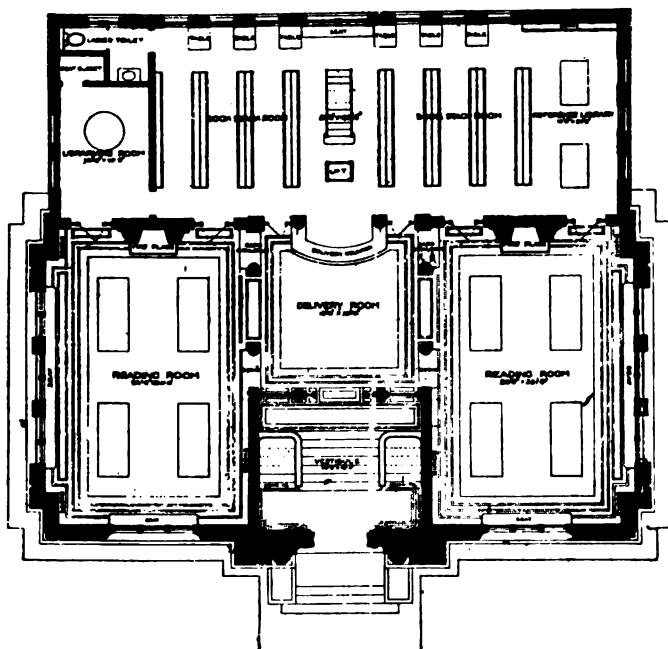
able space above the main floor will give the practical advantages of a stack of three stories. Shelves should be placed on all available walls in the reading rooms.

Instead of placing partitions between the rooms the entire floor may be one room divided into departments by double faced bookcases, varying from 4 to 8 ft in high according as it is desired to retain or to cut off the view, for the sake of appearance or supervision. This will give a great advantage of light with possibly some slight liability to disturbance. Bookcases so placed can be moved as experience may indicate to meet varying conditions. The library so arranged will give the impression of one compact

and harmonious whole and can be readily administered by the least number of persons.

Another plan given below of a building to cost \$23,000 now under construction at Johnstown N. Y., shows the same general

JOHNSTOWN (N. Y.) PUBLIC LIBRARY



arrangement of departments on a larger scale and with some fixed partitions. Copies of this are also used in correspondence.

LEGISLATION

About one third as many Legislatures (15) met this year as last and only one third as many library laws were passed; yet their number is sufficient to show that libraries are on the same level with other claimants before our lawmakers. Twelve states passed 31 library laws applying to the state at large, among them New Jersey 7, Iowa 6, Ohio 4, Kentucky 3, besides a large number of local and special acts, of which there were 9 in New York alone. One act is secured by parties interested in a special class of institutions or in particular cities, without regard to the general subject in the entire State; another is pushed through the mill with more zeal than judgment in incomplete or unintelligible form. Again the best of laws may require amendments from

time to time. The result is in some cases confusing, requiring extended research to ascertain what laws have been enacted and what are now in force. A compilation for each state would be of great practical and historical value. This work properly belongs to the state commissions and has been pretty thoroughly done in Maine, Massachusetts and New Jersey. The library law of New York State is included in what is known as the University law, which has been made easily accessible as a pamphlet. In a number of other states the respective commissions have published the chief library laws in some handy form outside the regular statutes.

Georgia. General laws for establishment and maintenance were enacted in Georgia and Kentucky. In Georgia, cities may make annual appropriations for library purposes to be expended under direction of the body controlling public schools. Control of public libraries by school authorities has proved unsuccessful in many places, and it is stated that this law will be amended soon. Under separate organization they generally secure better management and a greater degree of attention and help.

Kentucky. This state responded to an urgent need with three acts. Chapter 65 is permissive and applies to cities in classes 3 to 6, allowing a tax of not more than 10 cents to \$100 of property. Chapter 70 is mandatory and provides that public libraries shall be established in second and third class cities as soon as sufficient funds accumulate, 3% of taxes for common schools and half of all police fines and costs to be appropriated to the library fund. But the state Court of Appeals has decided that a tax levied by a city council for school purposes can not be appropriated by the Legislature to maintain a public library. It holds that the free public library is not a part of the school system and that such appropriation is a diversion of taxes from the purpose for which they were imposed. Though this decision refers to the law of 1894 as amended later, in effect it declares this new law also unconstitutional. Chapter 71 allows public libraries to be established in cities of the first class by vote of the common council, to be supported by a yearly tax of $2\frac{1}{2}$ to 4 cents to \$100. The only city in this class is Louisville.

New York. This state has always had a large number of special acts. In order to obviate the necessity for these an important amendment to the general library law was secured. This amend-

ment, known as chapter 185, applies to all municipalities and school districts. Any of them may raise money by tax for a public library or for library buildings or rooms or to share the cost with other like bodies or to pay for library privileges under a contract. Any municipality or district may acquire property real or personal and administer it for library purposes and by majority vote at any election or by three fourths vote of a city council may accept gifts conditioned on future specified annual appropriations for library support. When such vote has been approved under seal by the Regents of the University and recorded in its book of charters it is declared a binding contract. Several points in this law deserve particular notice. The power to pay by public tax for library privileges under a contract is specially important in opening an easy way by which any community, small or large, may profit by the resources of libraries privately controlled or of a library located outside its own territory. Wisconsin permitted this course in 1897 and New York recognized the principle in special bills of that year for both the Buffalo and New York public libraries. It is now made available throughout the State. It permits almost any library combination which may be found desirable and the small neighborhoods which are too small for independent libraries may under this law resort to their neighbors for help and pay their share of the cost. Such combinations make possible many libraries which were before impossible. The more striking feature of the act is the general power granted by it to municipalities and districts to accept gifts on condition of future annual appropriations; a provision which meets the terms of so many of Mr Carnegie's great gifts. This power to bind the future has been granted by the Legislature in several individual instances. By this act it is extended to every municipality and district of the State; and the formal record under seal in a state office makes the agreement a legal contract.

Summary of statutes

Each followed by chapter or page number and date when it became law.

Rhode Island. State librarian to exchange state publications with other nations, states, municipalities, institutions and persons. Distribution to states to be through state libraries. Officers of state departments to furnish sufficient copies on requisition. Amending '01 ch. 862. 959, 25 Mr

New York. Municipalities or districts may levy tax for library purposes including buildings; share cost with other like bodies or pay for library privileges under contract; acquire and administer property for library purposes. By majority

vote at an election or in cities by three fourths vote of council they may accept library gifts on condition of specified annual appropriation.

This is a binding contract when approved and recorded by Regents, or in case of certain schools by superintendent of public instruction. Amending '92 ch.378 §36. 185, 19 Mr

Incorporating Brooklyn Public Library. Mayor, comptroller and president of borough of Brooklyn to be trustees ex officio and 22 additional persons to be appointed by mayor, 11 from trustees of Brooklyn Library and 11 from directors of Brooklyn Public Library. Corporation to fill vacancies in its membership; term three years. May contract with New York city for construction of library buildings under terms of Andrew Carnegie's gift. Other powers and duties; tax for maintenance. Former acts of directors of Brooklyn Public Library confirmed. Other libraries may be transferred to new corporation. 606, 15 Ap

Authorizing town of Canton, St Lawrence county, to raise money by tax and acquire property for free public library. May accept gifts by majority vote at town meeting on condition that specified annual appropriation be made for maintenance. 95, 6 Mr

Authorizing union school district 1, towns of Chatham, and Ghent, Columbia county, to acquire and use property for establishing and maintaining free public library. Board of education, when authorized by majority vote of district at annual school meeting, may contract with persons agreeing to furnish money for erection and care of library. Annual tax to be levied according to agreement. Present district library to be maintained in new building as free public library under control of board of education. 20, 7 F

Salary of librarian of Supreme Court Library at Delhi, 6th judicial district, to be \$400 [formerly \$200]. Amending '82 ch. 51. 16, 7F

Increasing number of trustees of New York Public Library, Astor, Lenox and Tilden foundations, from 21 to 25. Mayor, comptroller and president of board of aldermen to be trustees ex officio. Other trustees to be elected according to bylaws of corporation. 21,7,F

Establishing the David L. Follett Memorial Library, to be designated as the Supreme Court Library at Norwich. Five trustees appointed by governor; term five years; powers and duties. Expenses of care and management of library to be paid by Chenango county. Librarian to serve during pleasure of board; salary not over \$500. 32, 19 F

Authorizing Oneida board of education to spend \$2000 for addition to school-house site for public library. Board may permit trustees of any public library in city to erect library building thereon and have control thereof; may transfer school district library to such public library. Amount of cost to be inserted in next annual tax levy. 403, 7 Ap

Conferring powers of a corporation for public purposes on trustees of Poughkeepsie city library, to accept and execute trusts committed to them. Amending '96 ch. 425 § 186. 228, 26 Mr

Authorizing council of Yonkers to prepare site and erect foundation walls for public library and issue bonds not exceeding \$15,000 at not over 4% interest. 462, 10 Ap

New Jersey. By majority vote of electors a township may unite with adjoining boroughs, townships or cities under 150,000 to support free public library. To levy annual tax not under $\frac{1}{4}$ mill nor over \$1000 annually. President of township committee member ex officio of union library board. Two other joint trustees may be designated by committees for three years. Town-

ships may combine in like manner for buying land and erecting buildings. Amending '95 ch. 200. 11, 10 Mr

By resolution of governing body municipalities may accept gifts for library buildings on condition that not exceeding 10% of gift be raised annually for support; may include $\frac{1}{2}$ mill per dollar in next annual tax levy for buying building site. 88, 2 Ap

By vote of governing body municipalities may accept gifts for library building on condition that not over 10% of gift be raised by taxation annually for support. Gift to be received by treasurer of municipality and expended by library trustees. 213, 9 Ap

When library building is offered on condition that site be furnished, governing body of municipality may appropriate money therefor by majority vote. Sum not to exceed $\frac{1}{2}$ mill per dollar on assessable property. Site to be bought by library trustees in corporate name of municipality. 10 year bonds may be issued at 5% or less. Supplementing '90 ch. 119. 230, 9 Ap

Private incorporated library associations may take real property by gift and dispose of it for association purposes, provided it does not exceed \$60,000 in value and is not exempt from taxation. 147, 3 Ap

Library commission to have \$1500 [formerly \$500] annually for expenses. Amending '00 ch. 62. 78, 1 Ap

County board of freeholders may provide library at courthouse of state reports and statutes and such other textbooks as circuit judge may designate; to expend not over \$500 annually. 89, 2 Ap

Maryland. Creating State Library Commission of four persons, two women, to be appointed biennially by governor; state librarian, superintendent of public instruction and librarian of Enoch Pratt Free Library to be members ex officio. To elect president and secretary annually, to serve without pay; give advice and aid to libraries; conduct traveling libraries; report yearly. \$1000 yearly for books and expenses. 247, 8 Ap

County commissioners may establish free public libraries in county seats and incorporated towns and levy annual tax not of over 5c per \$100 of property. Governing boards of municipalities may levy additional library tax of not over 7c per \$100 annually. County commissioners to appoint county library board of 9 directors, term 6 years. Treasurer of directors to give bond. Library privileges may be extended to nonresidents. Library board to report yearly to county commissioners. Libraries to receive state publications and their real estate to be exempt from taxation. Governor to appoint 5 library commissioners for five years; to give advice to libraries and aid in their establishment; to engage secretary not of their own number; \$1000 annually for clerical help; biennial report; 14 counties exempted from provisions of this act. Amending '98 ch. 515. 367, 8 Ap

Ohio. City board of education may acquire private library to be made public library; to elect 6 managers, for 3 years; no school trustee to be on library board except president of board of education who shall be member ex officio; powers, duties and organization; term of librarian and other appointees not to exceed 3 years; board of education may levy library tax of $\frac{1}{10}$ mill. p. 74, 31 Mr

In cities of 4th grade, 2d class, when public library associations that have been aided by city tax cease to exist, city shall assume control of property and maintain library. Amending rev. statutes '01 § 4002 subdiv. 48. p. 417, 7 My

Not over $\frac{1}{2}$ [formerly $\frac{1}{4}$] of annual appropriation of \$1200 for school libraries to be used for apparatus in cities over 200,000; \$300 in other districts [formerly

\$150 for city districts below 31,500 and \$75 for others]. Amending rev. statutes '00 § 3995. p. 478, 10 My

Question of establishing township library in *any* township [formerly "containing city of not over 1000"] to be submitted to voters. Amending rev. statutes '01 § 1476. p. 506, 10 My

Virginia. Secretary of state to have books, papers and state publications of value removed from garret of capitol to room suitable for storage. 490, 2 Ap

Georgia. Cities may make annual appropriations for library purposes; to be expended under direction of body controlling public schools; duties of trustees; may receive gifts and agree with donor to pay annual sum for maintaining library. p. 52, 17 D 01

State librarian to republish *with annotations* 1000 [formerly 500] copies of earlier Georgia reports and decisions. Amending '99 p. 83. p. 78, 5 D 01

Mississippi. Establishing State Department of Archives and History. Present executive committee of Mississippi Historical Society to be first board of 9 trustees with power to fill vacancies; term 6 years. To elect director and other officials of department. Powers and duties. 52, 26 F

\$7500 appropriated for 2 years. 34, 26 F

Salary of state librarian \$1500 [formerly \$1080]. Amending '00 ch.38. 109, 19 F

Louisiana. Authorizing secretary of state to employ additional assistant state librarian; salary \$600. 198, 26 J1

Kentucky. Authorities in cities of classes 3 to 6 may levy annual tax not exceeding 10c per \$100 for libraries and reading rooms. Mayor to appoint 5 directors; term 4 years; powers and duties. Trustees may grant library privileges on conditions to nonresidents; may exchange books with other public libraries permanently or temporarily; may contract to lend books to adjacent municipalities either singly or in traveling libraries; may accept gifts; annual report. Cities may pass ordinances for protecting libraries; may use city land for building. 65, 21 Mr

Free public libraries shall be established in 2d and 3d class cities as soon as sufficient funds accumulate under this act. Seven trustees; mayor, and presiding county judge if county aids annually in maintaining library, to be members ex officio; 5 to be appointed by mayor for 4 years; 2 to be women and not over 4 of same political party; must be 30 years old and give \$5000 bond; powers and duties. Established libraries may be transferred to public library. Shall be nonsectarian and nonpartizan. Cities to provide ordinances for care of library property. Appropriating annually 3% of taxes levied in cities for common schools and $\frac{1}{2}$ of fines and costs collected in police court for library fund. Gifts may be accepted and special annual tax levied according to terms of contract with donor. 70, 21 Mr

In cities of 1st class (Louisville) free public libraries may be established by vote of council. Mayor to be trustee ex officio and appoint 12 trustees for four years; corporate powers and duties; accept gifts; annual report. Council to provide for protection of property and levy annual library tax of 2 $\frac{1}{2}$ to 4c per \$100 of assessable property. 71, 21 Mr

Iowa. 500 copies of public documents to be deposited in state library to be used by State Library Commission for library purposes, only after regular 1000 copies have been distributed by secretary of state. Amending code '97 § 125. 6, 10 Ap

When conditioned gifts to library have been accepted by council in cities and towns, such conditions may be enforced through library board by process of law. Amending code '97 § 727. 34, 8 Ap

Library boards may condemn real estate for library buildings. 35, 17 Mr
 Maximum library tax limit to be two mills [formerly one mill in cities of
 25,000]. Amending code '97 § 732, 1005. 36, 11 Ap
 50, 26 Mr

Management of traveling and associate libraries to be transferred from State
 Library Board to Iowa Library Commission; latter may conduct summer school
 of library instruction and clearing house for periodicals to be given to local
 libraries. Secretary to report fully to governor in 1903 on library conditions
 and progress in state, with sketches of libraries and illustrations of buildings.
 Annual appropriation of \$6000 [formerly \$2000], not over \$3500 yearly to be
 used for expenses and salaries. Commission to receive supplies and postage from
 executive council. Amending code '97 § 168; '00 ch.116 § 2-5; repealing code '97
 § 2869; '98 ch.148. 173, 11 Ap

Minnesota. Public library directors to be elected by people *only in cities*
under 20,000 [formerly 50,000]. Amending '01 ch. 272. 32, 6 Mr

Library commissions. Library commissions now exist in 21
 states, five of which this year increased their appropriation for
 this purpose. Usually one of their chief functions is to manage
 a system of traveling libraries, though these have been under
 direction of the state library in Ohio, Michigan, New Jersey and
 Iowa. In Iowa they were established in 1897, but are now to be
 transferred to the commission, which is thought to be better
 qualified to develop the system. In New Jersey a like transfer is
 being urged. The Iowa commission is also authorized to conduct
 a summer school of library instruction and a clearing house for
 periodicals to be given to local libraries. It is to have 500 copies
 of all state documents for distribution to libraries. The secretary
 will make a full report to the governor in 1903 on library con-
 ditions and progress in the state, with sketches of libraries and
 illustrations of buildings. The commission has a yearly appro-
 priation of \$6000, of which \$2500 is to be expended for traveling
 libraries. This limitation in expense is considered a serious em-
 barrassment, as it insures a large number of books without
 adequate help for their proper administration.

The only new state added to the commission column is Mary-
 land, but it has two entirely separate organizations. Both have
 organized and each has a yearly appropriation of \$1000.

In Illinois vain efforts have been made with the Legislature for
 six years to get a library commission. The State Library As-
 sociation has finally reorganized and incorporated with the de-
 termination to do the work of a commission itself. Kentucky
 also made an unsuccessful attempt to establish one. The subject
 is being agitated in Missouri, South Dakota, California and
 Texas.

State library

Law approved	State	Name	Secretary
May 28, 1890	Massachusetts	Bd of Free Pub. Lib. Com.	Elizabeth P. Sohler, Beverly.
Ap. 11, 1891	N. Hampshire	Bd of Lib. Com'rs.	Arthur H. Chase, Concord...
June 1, 1893	Connecticut	Pub. Lib. Committee	Caroline M. Hewins, Hartford.
Nov. 6, 1894	Vermont	Bd of Lib. Com'rs	Mrs M.H. Buckham, Burl'ton.
Ap. 29, 1895	Wisconsin	Free Library Com...	Frank A. Hutchins, Madison.
Ap. 22, 1896	Ohio	Bd of Lib. Com'rs	C. B. Galbreath, Columbus.
Dec. 16, 1897	Georgia	State Library Com.	Anne Wallace, Atlanta.
Feb. 23, 1899	Maine	Library Com.	Leonard D. Carver, Augusta.
Feb. 24, 1899	Indiana	Public Library Com.	W. E. Henry, Indianapolis.
Mar. 4, 1899	Kansas	Trav. Libraries Com.	Nellie G. Armentrout, Topeka.
Ap. 10, 1899	Colorado	Bd of Lib. Com'rs	George M. Lee, Denver.
Ap. 21, 1899	Minnesota	State Pub. Lib. Com.	Gratia A. Countryman, Minneapolis.
May 5, 1899	Pennsylvania	Free Library Com.	G. Edward Reed, Harrisb'g.
June 1, 1899	Michigan	Bd of Lib. Com'rs	Mrs Mary C. Spencer, Lansing.
Mar. 20, 1900	Iowa	Iowa Library Com.	Alice S. Tyler, Des Moines.
Mar. 20, 1900	New Jersey	Public Library Com.	Henry C. Buchanan, Trenton.
Feb. 28, 1901	Idaho	State Lib. and Extension and Trav. Lib. Com.	Mrs E. J. Dockery, Boise.
Mar. 2, 1901	Washington	State Library Com.	Mrs Kate Turner Holmes, Seattle.
Mar. 9, 1901	Delaware	State Library Com.	Cornelius Frear, Dover.
Mar. 27, 1901	Nebraska	Public Library Com.	Edna D. Bullock, Lincoln.
Ap. 8, 1902	Maryland	State Library Com.	Bernard C. Steiner, Baltimore.
Ap. 8, 1902	Maryland	Free Library Com.	Mary L. Titcomb, Hagerstown.

commissions

Last annual appropriation	Traveling libraries	State aid	COMMISSIONERS		APPOINTED BY	Other information
			No.	Term		
\$4 500	No	Yes	5	5	Governor.....	.....
500	No	Yes	4	2	Governor.....	State librarian member ex officio
6 750	No	Yes	5	1	St. B'd of Edu....	.....
900	Yes	Yes	5	5	Governor.....	.....
9 000	Yes	No	5	5	Governor.....	President of University of Wisconsin, state sup't and sec. of State Hist. Soc. members ex officio
7 500	Yes	No	3	6	Governor.....	Traveling libraries operated by com'rs of state library
None	No	No	5	3	Governor.....	.....
4 700	Yes	Yes	5	4	Governor.....	State librarian member ex officio
3 000	Yes	No	3	4	Governor.....	State librarian sec. ex officio
4 000	Yes	No	5	3	Directors of st. lib.	State librarian chairman and president Kansas State Social Science Federation of Clubs members ex officio
250	No	No	5	5	Governor.....	.....
3 500	Yes	No	5	6	Governor.....	President of state university, sup't of pub. instruction and sec. State Hist. Soc. members ex officio
1 750	Yes	No	6	5	Governor.....	State librarian member ex officio and secretary
5 800	Yes	No	5	4	Governor.....	State librarian member ex off. Traveling libraries managed by state lib.
6 000	Yes	No	7	5	Governor.....	State librarian, sup't of pub. instruction, president of state university members ex officio. 2 members must be women
1 800	Yes	Yes	5	5	Governor.....	Traveling libraries operated by com'rs of state library
3 000	Yes	No	5	4	Governor.....	State sup't of pub. instruction and president of st. university members ex officio. 2 members must be women
1 000	Yes	Yes	6	4	Governor.....	State sup't of pub. instruction, presidents of state university and of agricultural college members ex off. 1 member chosen by State Federation of Woman's Clubs; 1 appointee must be a woman
500	Yes	Yes	9	5	Governor.....	State librarian secretary ex officio
2 000	Yes	No	5	5	Governor.....	State librarian, sup't of pub. instruction, chancellor and librarian of state university members ex officio
1 000	Yes	No	7	2	Governor.....	State librarian, sup't of pub. instruction and librarian of Enoch Pratt Library members ex officio. 2 appointees to be women
1 000	No	No	5	5	Governor.....	Applies to only 9 of 23 counties

LIBRARY MEETINGS

New York Library Association

Library week. The New York (State) Library Association held its 12th annual meeting at Lake Placid Sep. 22-27. Reports were received from the committees on library institutes, reading lists, and publicity.

LIBRARY INSTITUTES

On institutes J. H. Canfield reported that the State had been divided into the following districts:

- 1 Newburg: Putnam, Dutchess, Rockland, Orange, Ulster counties.
- 2 Albany: Greene, Columbia, Schoharie, Albany, Rensselaer, Schenectady, Saratoga, Washington, Warren, Essex, Clinton counties.
- 3 Utica: Montgomery, Fulton, Hamilton, Herkimer, Oneida, Madison counties.
- 4 Binghamton: Delaware, Sullivan, Broome, Chenango, Tioga, Chemung, Tompkins, Otsego counties.
- 5 Syracuse: Cortland, Onondaga, Oswego, Cayuga, Seneca counties.
- 6 Rochester: Schuyler, Yates, Ontario, Wayne, Livingston counties.
- 7 Olean: Steuben, Allegany, Cattaraugus, Chautauqua counties.
- 8 Ogdensburg: Franklin, St Lawrence, Jefferson, Lewis counties.

Three other districts were to be provided for by the local library clubs of the respective cities. These were as follows:

- 9 Brooklyn: Kings, Queens, Nassau, Suffolk counties.
- 10 New York: Richmond, New York, Westchester counties.
- 11 Buffalo: Orleans, Genesee, Wyoming, Erie, Niagara counties.

Eight institutes were held under the auspices of the association as shown in the table below. At each there were three sessions, two for the study of technical methods and a public evening meeting. Institutes were also held at White Plains by the New York Library Club and at Buffalo by the Buffalo Library Club.

Library institutes April-May 1902

Date	Place	Libraries represented	Persons present		Conductor	Speaker	Secretary 1902-3
			Instructional sessions	Public meeting			
1902							
Ap. 15-16	Cortland.....	15	50	125	W. R. Eastman.....	J. H. Canfield.....	E. W. Mundy, Syracuse
" 16-17	Binghamton.....	8	25	80	F. B. Hawley.....	J. H. Canfield.....	Mrs J. W. Clonney, Binghamton
" 18-19	Olean.....	15	30	75	M. E. Hazeltine.....	H. L. Elmendorf...	Miss E. W. Green, Jamestown
" 22-23	Rochester.....	12	25	32	H. L. Elmendorf...	H. L. Elmendorf...	Miss C. F. Webster, Geneseo
" 25-26	Ogdensburg.....	12	22	100	W. R. Eastman...	M. Dewey.....	F. Van Dusen, Ogdensburg
May 6-7	Ilion.....	18	75	200	S. C. Fairchild.....	J. H. Canfield.....	J. E. Brandegee, Utica
" 7-8	Albany.....	15	50	100	A. L. Peck.....	J. H. Canfield.....	Miss Anna H. Rodgers, Albany
" 9-10	Newburg.....	13	22	25	E. G. Thorne.....	J. H. Canfield.....	Miss E. G. Thorne, Port Jervis
		108					

The committee reported in part as follows: The general program prepared in advance was followed, with occasional change of leaders. When the gatherings were small the work was often more valuable to those present on that account. The very practical treatment of the subjects which were presented commanded the unflagging interest of all present through sessions of even three hours duration. It was generally true that the instruction given by the appointed leaders was followed by prompt questioning and ready response from librarians who were able to contribute suggestions and advice based upon their own experience and observation. Expressions of profound satisfaction with the results of the sessions were the rule. . .

Your committee is satisfied that the time and effort given to these institutes have been profitably spent. While the number of libraries represented has not been as large as could be wished, it has even exceeded the number anticipated by your committee for its first year's work. The fact that invitations were sent to 675 libraries and only 108 were represented, simply shows that there is a broad field for future effort. Certainly there is much encouragement to be found in the expectation that every library which was so fortunate as to be represented in these institutes received a new impulse which will be communicated to other libraries, from which we may safely predict a much wider interest in the institutes of another year.

The enthusiasm with which the institute idea has been received in the State and the sincere and hearty welcome given to your committee and those working in the institutes, have been peculiarly gratifying.

The association voted to continue the institute work along the same lines under the same committee, consisting of J. H. Canfield, New York; W. R. Eastman, Albany; A. L. Peck, Gloversville; Miss Grace D. Rose, Buffalo, secretary of the association.

COOPERATIVE READING LISTS

The committee on cooperative reading lists reported that six lists on popular subjects had been published. These can be had at 15 cents a 100 on application to the Buffalo Public Library. Other lists are in preparation. The committee was also authorized to publish in some newspaper short monthly lists of the best new books to aid small libraries in selecting and buying. Members of the committee are Mrs H. L. Elmendorf, Miss Martha T. Wheeler, Miss M. E. Hazeltine.

PUBLICITY

For the publicity committee Miss Hazeltine reported that considerable work had been done in exchanging library items printed in local papers, which had generally shown willingness to publish matters of general interest. Numerous samples were exhibited. The committee was reappointed for another year.

OTHER TOPICS

Rev. Alfred Fitzpatrick, of Ontario, gave an account of the work of establishing libraries and reading rooms in the logging camps of Canada.

The relation between libraries and museums was presented by Dr Lee H. Smith, of the Buffalo Society of Natural Sciences.

Dr A. S. Steenberg, member of the State Library Commission of Denmark, read a paper on libraries in Denmark.

The subject of library training was introduced by Miss Mary W. Plummer and called forth animated and protracted discussion. A committee, John E. Brandegee chairman, was appointed to inform itself on the work of the various library schools and report.

Miss M. E. Hazeltine conducted a suggestive round table discussion on detail work in small libraries.

The report on library legislation in the State was presented by W. R. Eastman.

The association voted approval of the plan to encourage the preservation of local history records through the establishment of a state record commission. It also indorsed the report of the western library meeting on the distribution of government documents. [See *Library Journal*, September 1902, p. 832]

OFFICERS 1902-3

President, Arthur E. Bostwick, New York

Vice president, Miss Theresa Hitchler, Brooklyn

Secretary, Miss G. D. Rose, Buffalo

Treasurer, E. W. Gaillard, New York

Reports of the meeting are in the *Library Journal*, October 1902, p. 883-94 and *Public Libraries*, November 1902, p. 429-33.

Local associations

Buffalo Library Club. Four meetings were held in the rooms of the Buffalo Historical Society and one in the Buffalo Library. Dates and subjects were as follows:

Oct. 24, 1901. Review of Lake Placid meeting of the New York State Library Association; Library Institutes.

Nov. 20, 1901. Library Institutes.

Jan. 29, 1902. Report on Library Institutes; Use of School Houses for the Furtherance of Settlement Work.

Mar. 21, 1902. Report on Library Institutes; Shakspeare evening.

May 30-31, 1902. Library institute for five counties of western New York held under the club auspices.

Officers 1902-3: President, Henry L. Elmendorf, Vice president, Adèle B. Barnum, Secretary treasurer, B. F. Morgan.

Reports of these meetings are in the *Library Journal*, 1901, p. 816, 879; 1902, p. 88, 211.

Long Island Library Club. Six meetings were held during the second year of the Club, as follows:

Oct. 3, 1901, at Adelphi College, Brooklyn. Report of committee on cooperation between libraries and schools; three papers on school libraries, from standpoint of teacher, librarian, and student.

Dec. 5, 1901, at Packer Collegiate Institute. Paper and discussion on library regulations.

Feb. 6, 1902, at the Pratt Institute Free Library, New York. Address by the president of the state association on library institutes; Pictures and Other Illustrative Material in Reference Work; Classification of Children's Storybooks.

Feb. 21, 1902, at the Grolier Club, New York. Addresses by president and librarian of the club; Mosaic Bookbindings; Should the Librarian be a Bibliophile?

Ap. 17, 1902, at the Brooklyn Y. M. C. A. Care of Maps; Treatment and Use of Pamphlets; election of officers 1902-3:

President, Frank P. Hill

Vice president, Miss Susan A. Hutchinson

Secretary, Miss Irene A. Hackett

Treasurer, Miss Mabel A. Farr

May 21, 1902, at Richmond Hill, Long Island, preceded by informal luncheon. Address by Jacob A. Riis; papers and reports on library institutes.

For full reports of the meetings, see *Library Journal*, 1901, p. 758-59, 880-81; 1902, p. 91-92, 211-12, 280, 331.

New York Library Club. Six meetings were held during the year as follows:

Oct. 10, 1901, at Aguilar Library, 197 E. Broadway. Reports on A. L. A. and Lake Placid meetings.

Nov. 14, 1901, Y. M. C. A. building, 4th av. and 23d st. Illustrated lecture on library buildings by W. R. Eastman, followed by review of plans for Carnegie buildings in New York city.

Jan. 9, 1902, Board of education building, 59th st. and Park av. Possibilities of Library Expansion in Connection with the Department of Education; Classification of Fiction by Subject and by Value.

Feb. 13, 1902, Grolier Club rooms, Mosaic Bindings; The Librarian's Duty as a Book buyer.

Mar. 13, 1902, Y. M. C. A., 23d st. branch. Address by Melvil Dewey on library prospects and possibilities. Annual dinner in evening at rooms of Aldine Association.

May 8, 1902, American Museum of Natural History. Relation of the Library to the Museum.

Officers 1902-3: President, Frank B. Bigelow, First vice president, E. W. Gaillard, Second vice president, Miss Emma F. Cragin, Secretary, Silas F. Berry, Treasurer, Miss Theresa Hitchler.

Library Journal reports the meetings for 1901 on p. 759, 881-82; for 1902 on p. 36-37, 147-48, 332.

National associations

American Library Association. The American Library Association held its 24th meeting at Magnolia Mass. June 14-20. Attendance was 1018 from 31 states and Canada; 282 men, 736 women; 276 chief librarians, 465 assistants, 54 trustees and commissioners.

In the general session were considered pains and penalties in library work; organization of bibliographic work in the past; a plan for an institute for bibliographic research; selection of technical and scientific books; the work of the bibliography division of the Library of Congress; work and plans of the publishing board; distribution of printed catalogue cards by the Library of Congress; branch libraries; incidents in the history of the Boston Public Library; a closer relation between librarians and publishers; public libraries and publicity.

In the different sections the following subjects were discussed:

College and reference section: Organization and Administration of the University Library; Bibliographies versus Dictionary Catalogues.

The catalogue section discussed the catalogues of Harvard University and the Boston Public Library and capitalization.

Trustees section: Relation of the Trustee to the Public Library; American Libraries from a Trustee's Point of View; Organization of the New York Public Library.

Children's librarians section: Home Libraries and Reading Clubs; Evaluation of Children's Books from the Point of View of the History of Literature for Children.

State library commissions round table: The Campaign of Education by the State Library Commissions; Special Library Training for State Commission Library Organizers.

State library associations round table: Functions of a State Library Association; How can a State Library Association Best Arouse Interest in Towns and Villages which are totally without Library Facilities?; How should the Program for a State Library Association Meeting be made up to be of the Most Use to the Librarians of Small Libraries? Benefits of Library Institutes.

Officers 1902-3: President, James K. Hosmer, First vice president, James H. Canfield, Second vice president, Anne Wallace, Treasurer, Gardner M. Jones, Recorder, Helen E. Haines.

For papers and proceedings see *Library Journal*, July 1902 and *Public Libraries*, July 1902.

National Association of State Librarians. The fifth annual meeting was held at Magnolia, June 18, 1902. Subjects: Relation of the State Library and People; Use and Importance of Genealogy in State Libraries; What a State Librarian's Report should Embody; Method of Keeping Track of the Creation and Cessation of State Boards, Institutions, Special Investigating Commissions, etc.; Card Catalogue for United States Documents; The Mission of the State Library.

Officers 1902-3: President, W. E. Henry, Indiana, Vice presidents, Johnson Brigham, Iowa; George S. Godard, Ct.; Secretary, Miss Maude Thayer, Ill.

National Educational Association. The sixth annual meeting of the library department was held in Minneapolis Minn., July 10-11.

Subjects: The Library as an Educator; Libraries and Schools, a Two-faced Question; What may the School Properly Demand of the Library?

It was voted to cooperate with the A. L. A. in the preparation of a handbook of library methods for normal schools.

Officers 1902-3; President, James H. Canfield, Vice president, Reuben P. Halleck, Secretary, Mary Eileen Ahern.

Reports are in *Library Journal*, September 1902, p. 833-35 and *Public Libraries*, October 1902, p. 377-80.

LIBRARY DEVELOPMENT

The year has been significant in a steady development of the rapidly growing public library idea, in the number and importance of new statutes for encouraging and protecting libraries, in the liberality of appropriations, in private gifts and public interests. No other movement is comparable with this. Its scope is constantly broadening. Various affiliated interests which were thought till very recently to be outside its proper field are now accepted as an essential part of a wholly satisfactory public library. Intelligent communities more and more realize that the library means not merely a collection of books or facilities for lending or reading them, but that it is the recognized center of intellectual life, and of that larger education gotten outside the classroom from reading, museum and collections, the mutual help of clubs, societies, teaching by correspondence and lectures, extension courses and summer schools. All these agencies which we group together under the name home education are not only clustering round, but are becoming an integral part of the public library as understood by all students of the problem. Our own work yearly grows stronger and more useful, is more widely appreciated and commended, and the example set by New York is sure to be followed by every other state in maintaining for its great public library interest as it does for the schools, a distinct department to supervise, encourage and afford advice enabling local librarians and trustees to accomplish the maximum amount of good with the time and money and books at their disposal.

Respectfully submitted

MELVIL DEWEY *Director*

Dec. 4, 1902

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University of the State of New York

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High School Department

INCLUDING ACADEMIES AND ALL INTERESTS OF SECONDARY EDUCATION

Bulletin 20

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High School Department

INCLUDING ACADEMIES AND ALL INTERESTS OF SECONDARY EDUCATION

Bulletin 20

DIRECTOR'S REPORT 1902

To the Regents of the University of the State of New York

The following report of the High School Department for the year ending June 30, 1902,¹ was prepared under my direction by Head Inspector Charles F. Wheelock.

Scope. This department includes academies, placed under the Regents in 1784, and academic departments of union schools under their supervision by the original union free school act of 1853, with other interests of secondary education.

ACTION BY THE REGENTS

Action rescinded. Berkeley School, New York, having failed to comply with the conditions of incorporation,

Voted, That the action of the Regents on Mar. 14, 1901, relating to Berkeley School, be rescinded. (Dec. 19, 1901)

Clinton Liberal Institute. 30 days' notice of the proposed action having been given to the trustees of Clinton Liberal Institute, Fort Plain,

Voted, That permission is given to said institution to remove to Canton to carry on its work in conjunction with St Lawrence University. But this action neither dissolves the corporation nor merges it with that of St Lawrence University. (Dec. 19, 1901)

Leases approved. *Voted,* That the lease of the Lansingburg Academy to the board of education of Lansingburg for five years is hereby approved, and the name of the academic department of the union school is continued on the University list as Lansingburg High School. (Dec. 19, 1901)

¹ All statistics in this report unless otherwise specified are for the year ending June 30, 1902.

Voted, That the lease executed by Round Lake Summer Institute to the board of education of Round Lake is hereby approved. (Dec. 19, 1901)

Pocantico Hills Union School academic department. It having been found on official inspection that academic work has been discontinued in Pocantico Hills Union School by resolution of the board of education,

Voted, That the academic department of Pocantico Hills Union School be dropped from the University roll. (Dec. 19, 1901)

St Faith's School. Aug. 12, 1901, it was represented by Eleanor A. Shackelford, secretary of St Faith's School, Saratoga, that the entire board of trustees had resigned and that there was no way of filling the vacancies thus created except by action of the Regents.

Voted, That, in accordance with the provisions of §34 of the University law, Spencer Trask, E. A. Palmer, Joseph Carey D.D., Eleanor A. Shackelford and S. Beatrice Sands, all of Saratoga, be appointed trustees of St Faith's School. (May 8, 1902)

The following action was taken on motion of Regent Reid:

Library transfers. *Voted*, That hereafter no transfer of books from an academic library to a public library be approved till a list of the books retained for the use of the school has been filed with the Regents. (May 8, 1902)

German American School Society. On unanimous request of the trustees of the German American School Society of the Nineteenth Ward of the City of New York, and on satisfactory evidence that it has no outstanding debts, on motion of Regent McKelway,

Voted, That, after the trustees have turned over the funds in their hands to the New York Turn Verein for the purposes mentioned in its charter, the corporation of the German American School Society of the Nineteenth Ward of the City of New York be dissolved. (July 2, 1902)

Hudson River Institute. Consideration was given to the unanimous request of the trustees of the Hudson River Institute, at Claverack, for the dissolution of that corporation and tendering a conveyance and surrender to the University of the property of the corporation. On motion of Regent Sexton,

Voted, That the executive committee be requested to ascertain the condition of the Hudson River Institute and report the conclusion of the committee as to the desirability of the requested dissolution of the said corporation; and, if such dissolution shall be recommended, that the committee outline a desirable method of procedure in winding up the business of the institute and advise as to the disposition of its property. (July 2, 1902)

Lyon Mountain Union School. *Voted*, That Lyon Mountain Union School be permitted to receive the \$100 quota for the year 1901, as its failure to report 175 days of actual session was due to the fact that the school was closed by order of the board of health, though the teachers were hired and paid for the full time required. (July 2, 1902)

Highland Falls High School. The secretary presented a report from Prin. S. H. McIlroy, with statements from Inspectors Cobb and Frisbee, showing plainly certain irregularities in connection with examinations at the Highland Falls High School.

Voted, That the papers of all students in the subjects in connection with which irregularities occurred be canceled; that the vice principal at the June 1902 tests be not authorized in future to act as a deputy at any Regents examination; that no Regents examinations be held in the Highland Falls High School till arrangements have been made satisfactory to the Regents to guard against the recurrence of such irregularities in the future. (July 2, 1902)

STATISTICS OF SECONDARY SCHOOLS

Growth. June 30, 1902, there were on the University roll 621 academic departments of public schools and 145 chartered academies, making a total of 766 institutions of secondary education, being an increase of 25 over the number reported in 1901. During the year 29 academic departments have been admitted; of these Sodus Union School has adopted the Sodus Academy and Round Lake Union School has leased the Round Lake Academy, these two academic departments thus becoming the successors of the two academies named. The academic department of the Pocantico Hills Union School has been dropped from the list as it failed to maintain the required standards. Bath-on-Hudson, Oswego

Falls and Tottenville have disappeared from the lists because of their being incorporated into the city systems of Rensselaer, Fulton and New York respectively.

During the year the number of full high schools has increased 10, of middle schools 12, of junior schools 5; the number of senior schools has decreased 2. Of the schools admitted during the year, 27 were of junior grade, 1 of middle grade and 1 of senior grade at the time of admission. As 2 high schools and 2 junior schools have been dropped from the list during the year, it appears that 20 schools have advanced from junior to middle grade, 9 from middle to senior and 12 from senior to high school. These advances indicate extension of course of study, increase in teaching force and addition to equipment.

In 1902, 6 academies have been incorporated with permanent charters.

Expenditures. In 1901 the amount expended by 595 high schools was \$3,596,673.78, an average of \$50.97 for each student, a decrease of \$9.95. In 1902 the amount expended by 621 high schools was \$4,445,083.17, an average of \$57.34 for each student, an increase of \$6.37 for each student over the average in 1901, but still less by \$3.58 than the average in 1900.

In 1901 the 146 academies expended \$2,106,043.74, or an average of \$154.45 for each student, a decrease of \$4.25. In 1902 the 145 academies expended \$2,182,625.49, an average of \$151.93 for each student enrolled, a decrease of \$2.52.

The expenditures of all secondary schools taken together were \$68.05 for each student in 1901 and \$72.37 in 1902, an increase of \$4.32.

Students. The number of students instructed in the secondary schools of the State in 1902 was 91,583, an increase of 7787, or 9.3%, over the preceding year.

The whole number of graduates holding four year or higher credentials is 6790, an increase of 387, or 6%, over the preceding year. The whole number of graduates is about 8.4% of the whole number attending and indicates therefore that over 33.6% of all the students attending secondary schools in the University complete four year courses of study.

The number of advanced diplomas and certificates issued was 2428, an increase of 7% over the preceding year.

The table of academic credentials issued in 1902 shows that the biennial fluctuations in the number of preliminary certificates issued continues, the tendency to a decrease in the odd years and to an increase in the even years being maintained. The increase in number of such certificates issued in 1902 over 1901 was 2569, or 14%. The number of first year certificates decreased 3575, or 25%. The number of second year and third year certificates is almost the same as in the preceding year. Only 50 fourth year certificates and only 29 advanced certificates were issued, indicating that practically all of those who remain for a full four year course arrange their work along definite lines leading to a diploma instead of a certificate. The same fact is indicated by the increase of 6% in the number of academic diplomas and 8% in the number of advanced diplomas issued.

The whole number of academic diplomas and fourth year certificates issued was 4362, which is 27.5% of the number of preliminary certificates issued in 1898, indicating that in schools taking Regents examinations 27.5% of those who completed the grammar school course in 1898 remained to graduate in 1902.

EXAMINATIONS

The results of Regents examinations for the year furnish a striking vindication of the belief that these examinations would still be demanded by the schools after payment to the schools on the basis of credentials earned had been abandoned. The volume of the examinations in 1902 was the largest in the history of the University, and under the circumstances the increase over 1901 is phenomenal. The growth of 19,468 in papers written, 27,008 in papers claimed, 28,916 in papers accepted at the Regents office furnishes conclusive proof that the high school teachers of the State believe that these examinations possess educational value. The fact that the number of papers accepted increases 1908 more than the increase claimed by the schools indicates that the papers sent to the office were rated more carefully than ever before at the schools. The increase of 10,855 in honor papers is a striking evidence of the excellent quality of the work done by the students.

Of the 84 subjects and divisions of subjects in which examinations were held, 56 show increases in number of papers allowed and 28 decreases. All Greek papers showed decreases, the total decrease in Greek papers allowed being 328, or 16.3%. All Latin papers combined show an increase of 813 papers allowed, or 4.6%. There is a total increase of 982 papers, or 12%, in German and of 337, or 8.3%, in French. Most gratifying is the gain of 25% in United States history.

In view of the importance of the study of United States history, a special investigation of the results in this subject for the past year has been made. It is found that in 1902, 91,583 students were enrolled in the high schools of the State, and of these 31,330 were enrolled in 33 cities that absolutely require the study of United States history either in the high school or in the year prior to high school entrance. Seven cities, with a high school enrolment of 2517, do not require United States history for graduation, yet the records of the Regents office show that these seven cities gave instruction in some field of United States history to 1209 students, of whom 966 passed examinations in a single year. As there are four years in the high school course and three different fields in which a student may receive historical instruction in regard to his country, it is evident that United States history is not seriously neglected even in these cities that do not require it for high school graduation. In regard to four cities no information touching specific requirements in history is at hand, but these four cities, with a high school enrolment of 1321, instructed 1125 students in United States history in 1902 and earned as a result 546 Regents credentials. Again, out of 91,583 students enrolled in Regents high schools, about 68,000 are enrolled in schools that take Regents examinations; and records show that of these 68,000 over 45,000, or 66%, took examinations in elementary United States history and civics, civics, or advanced United States history in a single year, 1902, and that 33,198, or nearly 50%, passed the examinations.

The Regents standard for high school graduation is the academic diploma, and a large proportion of our high schools require this Regents standard for graduation. Regents academic diplomas were issued to 2613 students as a result of the examina-

tions in June 1902. These diplomas show on their face and from undisputed office records that of these 2613 students only 28 had failed to pass Regents tests in United States history. Our records and correspondence also show that of the 28 who had failed to pass the examination in United States history 20 had studied the subject in Regents schools. Five had never studied it, and we have no information regarding the remaining three. If now we look to the quality of the history instruction given, we see evidences of a much greater improvement. While the increase of high school students from 1901 to 1902 has been only 9.3%, the number of papers claimed in United States history subjects has increased 18%, the number of credentials earned 25%, and the number of honors earned 57%.

The table shows that 438,047 academic examination papers in all the subjects were rated by the University during the year, a larger number than in any previous year.

In the High School report for 1901 reference was made to the fact that the number of candidates entering the academic examinations in New York city had so increased as to tax severely available accommodations and that a nominal charge for admission had been fixed. This fee was not large enough to debar any who really needed to take the examinations, but it has apparently had the result of relieving the department of the necessity of handling a large mass of poor work written out of mere curiosity. The number of papers written in these examinations during the year shows a decrease of 5456.

Grants to secondary schools. New York State from the time of its organization has appropriated money in aid of secondary education. In 1786 the surveyor general was directed to set apart one lot in each township of unoccupied lands for the promotion of what we now call secondary education. The establishment of the literature fund in 1790, successive additions to it in 1813, 1819, 1827, the application to it since 1838 of a large part of the income of the United States deposit fund, the enactment of the Horton law in 1895 and its amendment in 1901 and in 1902, indicate the fixed policy of the State for over a century, a policy that has been so fruitful in results that New York's organization for

secondary education is recognized at home and abroad as without a rival. The various enactments mentioned above, appropriating state funds in aid of secondary education, have all had a single object, and that to make academic instruction available to the widest possible extent and at the least possible cost to the individual student. It has all been directly a remission of tuition not only for the student residing within a district where an academic school was maintained, but also for the nonresident student as well, for it has served to diminish the school tax paid by the parent of the resident student and has lessened the tuition fee paid by the parent of the nonresident student.

The amounts apportioned to secondary schools in the University during the fiscal year ending Sep. 30, 1902, were as follows:

For credentials (1899-1900).....	\$138 560 ..
\$100 quota (1900-1).....	61 900 ..
attendance (1900-1).....	76 611 25
books and apparatus (1901-2).....	32 467 89
	\$309 539 14
Cost of inspection, travel and incidental expenses (1901-2).....	33 288 43
	\$342 827 57
Reduction in estimates for books and apparatus.....	\$2 722 86
Reduction in cost of inspection, travel and incidental expenses.....	4 449 57
	7 172 43
	\$350 000 ..

In the High School report of 1900, and again in 1901, attention was called to the pressing problem of providing free instruction for students living within districts where high schools were not maintained. Governor Odell, in his address at the University Convocation last July, expressed himself as follows:

So, too, in the development of the higher branches of education we owe to these districts that are without academies and high schools the same opportunity that has been accorded for a common school education. While it is true that the State has furnished means and opportunities for secondary education, it has been deficient in furnishing opportunities for preparation for the enjoyment of such privileges. I hope to see a system inaugurated soon whereby such pupils as desire these advantages may receive them without entailing on their parents additional expense. This, perhaps, might be met by a law which would enable the Regents to reimburse those districts on which responsibility might be placed for the additional burdens thus imposed. Education should be free in every respect.

The University items for the 1903 appropriation bill, approved by the executive committee of the Regents Oct. 1, 1902, by the finance committee of the Regents Dec. 3, 1902, and by the full board of Regents Dec. 4, 1902, included \$10,000 from their savings toward meeting the governor's proposition to enable the Regents to reimburse those schools of academic grade admitting without charge for tuition students from districts where free academic instruction is not available.

The statement of Jan. 12 accompanying the items expressed the opinion that the object of the governor could be accomplished if the Legislature would add \$125,000 to be apportioned for attendance of nonresident academic students at the proposed rate of 10 cents a day, or a maximum of \$20 a year. This maximum of \$20 a year was fixed by laws of 1873, ch. 642, which confirmed the principle of distribution by the Regents of state aid to permit free tuition.

Early in the legislative session of 1903 two bills were introduced in the Legislature providing for the payment by the State of the tuition of nonresident students in secondary schools. The one known as the Merritt bill, which was favored by the Department of Public Instruction and opposed by the Regents, proposed a change in the law governing the distribution of the free school fund to the effect that the state superintendent might apply to the payment of such nonresident tuition the money now apportioned to the counties on the basis of population and to the school districts on the basis of attendance and which under existing laws must be used for the support of elementary schools.

The other bill, known as the Smith bill, which was favored by the Regents and opposed by the state superintendent, made a distinct appropriation of \$135,000 to be distributed under regulations made by the Regents as had been suggested in the governor's convocation address. Both of these bills failed of passage; but near the close of the session of the Legislature a third bill was introduced and passed, appropriating \$100,000, and providing that the regulations for the distribution of the fund be made jointly by the heads of the two departments. The schools of the State are to be congratulated on the fact that nonresident tuition is to be paid by the State, and that it is not to be paid by taking it out of moneys that the schools are already receiving for the support of elementary education, as was proposed by the Merritt bill, but by a special appropriation for this purpose, as the Regents have constantly and consistently contended. It is hoped that that interpretation of the law will be sanctioned which is most liberal toward the nonresident student, as unquestionably such an interpretation would best accomplish the purpose of the law. Academic departments with approved one and two year academic courses, as well as three and four year academic courses, should be included, and if the law permits, similar approved courses in nonsectarian academies if adequate instruction is given and suitable accommodations provided.

Nonresident tuition should be paid to the extent that the course of study has received approval and no farther; but, if the law permits, students residing in districts maintaining approved academic courses of one or two years should be entitled to free tuition for the second, third or fourth academic year in other schools, maintaining three or four year academic courses.

If the present law does not permit payment of tuition in accordance with the above suggestions, there is ample time to amend it so as to correct these defects before the tuition is payable, and such amendment could doubtless be secured on joint request of the Regents and the superintendent of public instruction.

The minimum requirement for admission of a school of junior grade is an approved library worth \$200, approved apparatus worth \$100, and facilities for carrying on satisfactorily one year of academic work; also to retain its standing and to draw the

quota of \$100, the school must not fall below 1000 days' attendance of academic students for each of two consecutive years. Successive increases of one year of work, \$100 in library and \$50 in apparatus enable the school to pass to middle, senior and high school grade respectively.

A school must raise, therefore, at least \$300 from local sources and complete one year of satisfactory work before it can receive a cent from state funds. The \$100 quota certainly secures large returns.

The Massachusetts report for 1899 shows 30 high schools with students ranging from four to 24. Thirty-one high schools in Massachusetts report only one teacher. In New York each school, to rank as a high school, must have two teachers whose full time or its equivalent is given to academic work. Pennsylvania in 1900 reported 51 high schools with from two to 24 students. Fifty-two high schools in Pennsylvania had only one teacher.

Since Feb. 1894, 23 junior academies have been chartered and 283 junior academic departments have been admitted to the University. Of the academies so chartered 14 are still of junior grade; three are of middle grade, and six are of full academy grade. Of the 283 academic departments admitted, 152 remain of junior grade, including all recent admissions. Thirty-seven of the 283 are now of middle grade; 26 are of senior grade and 68 are full high schools. A few of these schools unfortunately have not made the development that was hoped for. One has entirely suspended academic work. Several have failed to maintain the 1000 days' attendance of academic students, usually because of the closing of school for several weeks in succession on account of epidemics. But in the great majority of cases the results have been most satisfactory, and thousands have thus gained academic education otherwise unobtainable. It can be maintained without fear of successful contradiction that no other educational work of the State has produced such gratifying results with so small expenditure.

There are now in the University 193 academic schools with less than 25 academic students, though there are only two public schools and three junior academies with fewer than three teachers in all grades. Not one of these five schools, however, ranks as a

high school or academy. Seventeen of these 193 schools have registered four year courses conducted in each case by two teachers whose full time or its equivalent is given to academic work; 19 have registered three year courses, 43 have registered two year courses, 114 have registered one year courses. Only 19 of these 193 schools are within less than 3 miles of other academic schools; 28 are between 3 and 5 miles, 87 between 5 and 10 miles, 35 between 10 and 15 miles, 13 between 15 and 20 miles, 4 between 20 and 25 miles, 7 between 25 and 55 miles. If these schools were discontinued, such rural pupils would be forced to go on an average about 9 miles for academic instruction.

No school is great because of numbers. Wherever there is one earnest teacher with clear mind, a large heart and an absorbing interest in his work, and two or three earnest pupils, there is a great school. We too often overlook this fact. We think a school can not be a high school because it is not large enough. Scattered over this State are many high schools, not large in numbers, that are yearly sending out to do the world's work young men and young women who are large in all that a school has to give. A careful study of the problem has shown clearly and unmistakably that the rural school on the country hillside, supplemented by the small union school or academy in the village, is the most effective educational combination in existence today, a combination that has furnished the larger part of the trained men and women who are doing the world's most important work. It has been well said of the small incorporated village in this connection: "The high school boy is there the pivot around which the whole social structure revolves. The incorporated villages nowadays may almost be said to exist that the high school boy may be. And out of its walls, when his plane geometry is done and his *Caesar* is conned, the boy goes forth conquering and to conquer." From these villages comes "a steadily marching army of fairly educated men and women to take up with strong hands and well stored minds the serious affairs of the metropolis and the world."

Though, furthermore, the quota of \$100 is paid only to districts that maintain an academic department, it is not true that the rural districts are contributing to the support of high schools in cities and villages. The cities and larger towns are not only

supporting at their own expense school systems including the high school departments, but they are contributing to the support of all the schools in the rural districts, and they are doing it willingly because they recognize the importance, the necessity, of the universal dissemination of elementary education. In addition the schools of rural communities receive a positive benefit from expenditure under the Horton law. The Regents have encouraged the establishment of academic departments in the smaller towns of the State, thus bringing academic instruction within the reach of almost every person in the State and at a cost that is much below what it would of necessity be were it not for the aid that schools receive from the "Horton fund." The proof of this statement will be evident to anyone who will examine the list of such schools in any part of the State.

INSPECTION

The number of visits of inspection made by each of the inspectors is shown in table K of the appendix; and, in addition, are shown the educational meetings at which inspectors have been present and assisted.

Approval of laboratory courses. In a circular to principals, the following announcement was made in regard to courses in physics, chemistry, botany and zoology.

An allowance of 20 credits toward examinations in botany, zoology, physics and chemistry will be made to those students who have completed approved laboratory courses. If approval is desired for this purpose, application should be made to the Regents office by the principal of the school not later than Nov. 1. As soon as practicable after a request for approval is received, the school will be inspected. The inspector will consider (1) equipment of the laboratory, (2) special qualifications of the teacher, (3) course pursued, (4) time spent in the work, (5) notebooks kept by students. If the course is satisfactory in all these respects, a certificate of approval will be sent from the Regents office to the principal of the school, after the receipt of which students certified by the principal as having completed the course satisfactorily will be granted the allowance of 20 credits. Unless this certificate of approval has been received by the principal, all students should be instructed to answer 10 questions at each examination.

Following this announcement, requests were received for the approval of 278 courses, as follows: 106 in physics, 95 in chemistry, 51 in botany and 26 in zoology. Special visits for the purpose of considering these courses were made, principally by Inspector Cobb for physics and chemistry, and by Inspector Clement for botany and zoology. As a result, approval was given to 95 courses in physics, 86 in chemistry, 41 in botany and 24 in zoology, or 246 in all.

The inspectors, from their close personal relations with the schools and their daily contact with classes in recitation rooms, are the persons best fitted to determine the character of the examination questions that should be set. Because of this fact, they have been held responsible for the preparation of the Regents examination papers, and the grading of the answer papers has also been largely directed by them. It is believed that a satisfactory system of examinations can be conducted in no other way.

Overstrain in the schools. Much has been said within the past few years regarding the overworking of students in our schools and the nervous strain resulting therefrom. During the past year we have collected some statistics bearing on this matter. In a study of the work of high school students, made early in the school year at the request of Professor De Garmo of Cornell University, information was secured from fairly representative teachers and students in all parts of the State. The large city high school, the large village school, and the small union school in the country hamlet all contributed to the result. The tabulation of the returns indicates that the average high school student in this State spends 7 hours and 24 minutes each school day in school work, that is, in recitation and in preparation for recitation; that the students all average 2 hours and 17 minutes in other work, making a total of 9 hours and 41 minutes. In the main the results do not vary greatly in the different schools. The average number of recitations a day is reported to be 3.56. We find that the average high school student rises at 6.45 a. m., retires at 9.44 p. m., thus obtaining nine hours for sleep. Almost unanimously they report that they sleep well and rise refreshed. It seems, therefore, that the demands of nature in this direction are fully met. Deducting the 9 hours 41 minutes of work and

the 9 hours of sleep from the 24, we have left 5 hours 19 minutes for such exercise and recreation as inclination and opportunity may afford. The majority of all the students report that they are doing all the work that they feel able to do. About 10% think that they might do more. Very few complain that they are carrying more than they can carry with ease. These reports, coming from the students themselves, indicate that they at least do not feel that the school is a serious burden.

The other study of the health of school children was made by asking the opinions of physicians in various parts of the State as to the effects of school work on the students. It is gratifying to report as a result of this investigation that the wild statements regarding the disastrous effects of our public schools on the health of the children seem to be without foundation. Reports were received from about 60 physicians, and almost without exception they indicate that there are very few cases of this kind, and that these cases are due to inherited tendencies or to conditions outside the schoolroom more than to the school itself, also that no radical change in the organization of our school work is necessary to meet the difficulty beyond provisions for the special treatment of individual cases of neurasthenic children.

It is a lamentable fact that many people with the best intentions but with hysterical tendencies have acquired the habit of attributing all the diseases that flesh is heir to to our schools. Whenever a case of nervous difficulty occurs in a child who is attending school, the conclusion is at once reached that the school is all wrong, and a wildly hysterical article appears in some prominent periodical calling for radical changes in the system. It is time for the teachers of the State to commence a careful, scientific and exhaustive investigation of this subject in the interests of humanity as well as for self-protection.

It has been proposed recently that detailed accounts of crimes, of suicides and of all other horrors should not be printed in the public press, as they suggest a repetition of the occurrences. Equally important is it, I think, that ill advised articles regarding the health of school children should not be widely published till each case referred to has been carefully and scientifically investigated. There is serious danger that many children of ner-

vous tendencies may be led to nervous breakdown by the suggestions contained. It is better to make children think the school good for them, than to impress them with its dangers.

SUMMARY OF APPENDIX

For the convenience of the reader the tables and some other information have been transferred to the appendix. These are described briefly as follows:

- A** Comparative table of secondary schools on June 30, 1902.
- B** Secondary schools in the University. Teachers, students, net property and expenditures.
- C** Analysis of expenditures.
- D** Students in secondary schools. The number in schools of each grade and class.
- E** Credentials issued in 1902.
- F** Academic examinations in 1902.
- G** Summary of criticisms of question papers since 1893.
- H** Calendar of academic examinations.
- I** Grading of schools, showing the number in each grade and the changes since 1896.
- J** Showing advance in grade of the schools admitted each year since 1893, when the schools were first graded.
- K** Summary of inspections, showing total number of visits made, to which is added a list of addresses given by each inspector.
- L** List of institutions whose names were changed in 1902.
- M** Summary of secondary schools chartered or admitted to the University in 1902. Permanent charters were granted to six academies, and certificates of admission were issued to 29 academic departments. The total net property of these institutions was \$747,255.92, the average net property \$21,978.12.
- N** Preliminary and academic studies table.

Respectfully submitted

JAMES RUSSELL PARSONS JR

Regents Office, Albany N. Y.

Director

May 4, 1903

APPENDIX

A Comparative table of secondary schools June 30, 1902

	1870	1875	1880	1885	1890	1895	1896	1897	1898	1899	1900	1901	1902
High schools	62	121	153	191	231	373	421	465	514	541	565	595	621
Academies	125	107	86	79	104	131	128	119	131	134	140	146	145
Total	187	228	239	270	335	504	549	584	645	675	705	741	766

B Secondary schools in the University 1901-2

CLASSIFICATION	NUMBER	FACULTY		STUDENTS IN ATTENDANCE			Net property	Expenditures
		1902	Men	Women	Boys	Girls	Total	
High schools	621	a1 177	a4 086	32 965	44 550	77 515	\$11 619 389 17	\$4 445 083 17
Academies	145	b564	b1 270	6 213	8 183	14 366	19 106 318 13	2 182 625 49
Total 1902	766	1 741	5 356	c39 052	c52 531	c91 583	\$30 725 707 30	\$6 627 708 66
Total 1901	741	1 619	5 083	36 143	47 653	83 796	28 888 689 31	5 702 717 62
Increase	25	122	273	2 909	4 878	7 787	\$1 837 117 99	\$924 991 14

a Of these, 857 men and 1363 women teach academic studies only, 202 men and 782 women teach both academic and subacademic studies, 57 men and 1970 women teach subacademic studies only and 61 men and one woman act as principals, but do not teach.

b Of these, 351 men and 400 women teach academic studies only, 133 men and 319 women teach both academic and subacademic studies, 55 men and 534 women teach subacademic only and 20 men and 17 women act as principals but do not teach.

c Excluding those duplicated, 126 boys and 172 girls of Binghamton High School are also students of Barlow School of Industrial Arts.

C Analysis of expenditures

	High schools	Academies
1 Grounds	\$113 747 22	\$20 225 90
2 Buildings	942 837 58	174 321 52
3 Furniture	39 833 92	35 010 97
4 Apparatus	58 608 05	8 973 02
5 Libraries	46 334 39	7 718 13
6 Salaries for instruction	2 513 743 43	691 633 22
7 Paid other officers and employees	172 277 74	124 449 ..
8 Prizes, scholarships etc.	1 945 20	24 269 45
9 Given or lent to students	.....	31 539 89
10 Interest on debts	47 845 09	82 419 87
11 Insurance	13 368 10	20 137 07
12 Fuel and lights	109 502 96	98 212 59
13 Other incidentals	44 445 04	25 026 58
14 All other purposes	340 594 45	838 688 28
Total	\$4 445 083 17	\$2 182 625 49

D Students in secondary schools

	No. Oct. 1, 1902	Boys	Girls
<i>High schools</i>			
High schools.....	373	29 388	40 048
Senior ".....	37	736	904
Middle ".....	69	1 061	1 330
Junior ".....	138	1 717	2 231
aSpecial ".....	2	63	37
Total	619	32 965	44 550
<i>Academies</i>			
Academies.....	107	4 261	4 818
Senior academic schools.....	3	21	88
Middle ".....	12	160	308
Junior ".....	20	521	422
bSpecial ".....	3	1 250	2 517
Total.....	145	6 213	8 153
Grand total.....	764	c 39 052	c 52 531
		c 91 583	

aNew York Institution for the Blind, New York, and New York State School for the Blind, Batavia.

bBarlow School of Industrial Arts, Binghamton, Hebrew Free School, Syracuse, and Rochester Athenaeum and Mechanics Institute.

cExcluding those duplicated. 126 boys and 172 girls of Binghamton High School are also students of Barlow School of Industrial Arts.

E 1902 credentials

Preliminary certificates	20 390
1st year "	10 570
2d " "	7 377
3d " "	5 724
4th " "	50
Advanced certificates	29
Diplomas	4 312
Advanced diplomas	2 399

F Academic examinations in 1902

Schools taking examinations.....	726
Papers written	558 301
Papers claimed	438 047
Papers allowed	382 855
Papers rejected	55 192
Per cent of claimed papers allowed.....	87

I Grading of schools

	ACADEMIES						ACADEMIC DEPARTMENTS						TOTAL								
	Acad.	Br. acad.	Mid. acad.	Jr. acad.	Below grade	Special	Total	H. S.	Br.	Mid.	Jr.	Below grade	d Special	Total	H. S.	Br.	Mid.	Jr.	Below grade	Special	Total
Jan. 1, 1896.....	86	7	6	18	7	....	124	125	19	36	106	9	2	297	211	26	42	124	16	2	421
Oct. 21, 1896.....	87	1	6	24	1	....	119	214	34	43	137	....	2	430	301	35	49	161	1	2	549
June 30, 1897.....	90	2	6	20	1	....	119	247	26	50	140	....	2	465	337	28	56	160	1	2	584
Dec. 22, 1897.....	92	2	7	21	1	....	123	253	24	51	158	....	2	488	345	26	58	179	1	2	611
June 30, 1898.....	99	3	8	19	1	a1	131	267	24	61	160	....	2	514	366	27	69	179	1	3	645
Dec. 16, 1898.....	98	4	9	18	1	a1	131	279	28	67	146	....	2	522	377	32	76	164	1	3	653
Nov. 17, 1899.....	103	4	8	16	1	b1	133	311	30	61	137	....	2	541	414	34	69	153	1	3	674
Nov. 9, 1900.....	106	4	11	17	1	c3	142	338	35	63	124	....	2	562	444	39	74	141	1	5	704
Oct. 1, 1901.....	106	2	11	20	....	c3	142	363	39	57	133	....	2	594	469	41	68	153	....	5	736
Oct. 1, 1902.....	105	3	12	20	....	c3	143	373	37	69	138	....	2	619	478	40	81	158	....	5	762

a	Round Lake Summer Institute.	b	Hebrew Free School, Syracuse.	c	Barlow School of Ind. Arts, Binghamton; Hebrew Free School, Syracuse.
d	Rochester Athenaeum and Mechanics Inst.		d	Schools for the blind.	

a Round Lake Summer Institute.

b Hebrew Free School, Syracuse.

c Barlow School of Ind. Arts, Binghamton; Hebrew Free School, Syracuse,

and Rochester Athenaeum and Mechanics Inst. d Schools for the blind.

J Advance in grade

		Whole number of schools admitted as junior schools since Feb. 1894	Number of such schools now of middle grade	Number of such schools now of senior grade	Number of such schools now of high school grade	Number of such schools still hold- ing junior grade
1893-94.....	{ acad.....	3	1		2	
	{ u. s.....	14	3	2	7	2
		17	4	2	9	2
1894-95.....	{ acad.....	5			2	3
	{ u. s.....	48	5	10	24	9
		53	5	10	26	12
1895-96.....	{ acad.....	2	1		1	
	{ u. s.....	41	10	6	16	9
		43	11	6	17	9
1896-97.....	{ acad.....					
	{ u. s.....	32	8	5	12	7
		32	8	5	12	7
1897-98.....	{ acad.....	2	1		1	
	{ u. s.....	42	5	3	7	27
		44	6	3	8	27
1898-99.....	{ acad.....	2				2
	{ u. s.....	24	5		2	17
		26	5		2	19
1899-1900.....	{ acad.....	3				3
	{ u. s.....	23	1			22
		26	1			25
1900-1.....	{ acad.....	5				5
	{ u. s.....	32				32
		37				37
1901-2.....	{ acad.....	1				1
	{ u. s.....	27				27
		28				28
Grand total...	{ acad.....	23	3		6	14
	{ u. s.....	283	37	26	68	152
		306	40	26	74	166

K Summary of inspections 1902

INSPECTOR	High schools	Academies	Colleges	Professional and special schools	Universities	Registered private schools	Special corporations	Business schools	Miscellaneous schools not in University	Libraries and museums	Total
C. F. Wheelock.....	7		2								9
C. N. Cobb.....	49	40	2	11	1		6		27		136
A. G. Clement.....	109	19		2					3		132
Charles Davidson.....	104	12	1				1		1		119
E. W. Lyttle.....	102	28	4	4		1			3		140
S. D. Arms.....	141	40	4	3			1		3		192
E. J. Peck.....	127	11	5	3	1				3		149
E. S. Frisbee.....	90	29	1						1		121
W. R. Eastman.....										147	147
W. F. Yust.....										162	162
I. O. Crissy.....	7	1						18			
J. H. Gibson.....	126	4									130
F. M. Baker.....	112	8									120
Other members of staff.....	5	1		5	1						12
	979	191	19	28	3	1	9	18	38	309	1 569
Library inspections.....											309
Other ".....											1 260

a Including 19 not in University.

Educational meetings. In addition to these visits to institutions, the inspectors have attended and taken part in the exercises of educational meetings as follows:

1901

Charles F. Wheelock

- Sep. 23 Auburn, State Association of School Boards
- Sep. 24 Auburn, Council of Superintendents
- Nov. 15 Albany, Hudson River Schoolmasters Club
- Nov. 23 Fonda, Tricounty Council
- Nov. 29-30 Syracuse, Association of Colleges and Preparatory Schools of the Middle States and Maryland

1902

- Jan. 3 Brockport, dedication of building
- Jan. 17 Ithaca, Cornell University, department of pedagogy
- Jan. 24 Cohoes, city teachers association
- Feb. 15 Rochester, teachers association, 2d district
- Feb. 28 New York, State Art Teachers Association
- Mar. 6 Fort Edward, teachers association
- Mar. 22 Albany, Albany College Alumni Association
- Ap. 12 Albany, Hudson River Schoolmasters Club
- Ap. 15 Cold Spring, Putnam Co. Teachers Association

1902

- May 10 Hudson, Hudson River Teachers Association
- May 17 Fonda, Tricounty Council
- June 24 Mount Vernon, commencement
- July 7-11 Minneapolis Minn., National Educational Association

1901

Charles N. Cobb

- Aug. 5 Round Lake, school meeting
- Sep. 3-4 Lakewood, Association of School Commissioners and Superintendents
- Oct. 24-25 Auburn, State Council of Superintendents
- Nov. 15-16 Albany, Hudson River Schoolmasters Club
- Nov. 22-23 Canandaigua, Ontario Co. Teachers Association
- Dec. 26-27 Syracuse, Associated Academic Principals
- Dec. 26-27 Syracuse, Grammar School Principals Council
- Dec. 27-28 Syracuse, New York State Science Teachers Association

1902

- Feb. 26-28 Chicago Ill., Department of Superintendents
 Ap. 11-12 Albany, Hudson River Schoolmasters Club
 June 18 Schenectady, corner stone laying of high school
 June 25 Middleburg, commencement
 June 26 West Winfield, commencement

1901

A. G. Clement

- Nov. 9 Fort Plain, Montgomery Co. Teachers Association
 Dec. 27-28 Syracuse, New York State Science Teachers Association

1902

- Ap. 28 Windsor, teachers institute
 May 9 Livonia, Livingston Co. Teachers Association
 June 20 Margaretville, commencement
 June 23 Highland Falls, commencement
 June 23 Cornwall-on-Hudson, commencement
 June 24 Florida, S. S. Seward Institute, commencement
 June 25 Goshen, commencement
 June 26 Andes, commencement
 June 27 Milford, commencement
 July 7-12 Minneapolis Minn., National Educational Association

1901

Charles Davidson

- Nov. 15 Gloversville, teachers association
 Nov. 30 Syracuse, Association of Colleges and Preparatory Schools of the Middle States and Maryland

1902

- Feb. 15 Watertown, Principals Association of Jefferson and Lewis Counties
 Ap. 26 Palmyra, teachers conference
 May 3 Allegany, Cattaraugus Co. Teachers Association, 1st district
 May 10 Oswego, Oswego Co. High School Club
 May 16-17 Salamanca, Cattaraugus Co. Teachers Association, 2d district
 June 20 Delhi, Delaware Academy commencement
 June 24 Walton, prize speaking contest

1901

S. Dwight Arms

- Nov. 16 Lancaster, Erie Co. Teachers Association
 Nov. 23 Canandaigua, Ontario Co. Teachers Association, 2d district
 Nov. 29-30 Syracuse, Association of Colleges and Preparatory Schools of the Middle States and Maryland
 Dec. 26-28 Syracuse, Associated Academic Principals

1902

- Feb. 7-8 Ticonderoga, Champlain Valley Educational Council
 Mar. 15 Rochester, Monroe and Orleans Co. Principals Association
 Mar. 20 Dunkirk, meeting of teachers of parochial schools
 May 17 Charlotte, Monroe and Orleans Co. Principals Association
 June 6 North Tarrytown, parents meeting
 June 21 Elba, commencement
 June 23 Cuba, commencement
 June 25 Cazenovia, alumni association
 June 26 Lancaster, commencement
 June 27 Spencerport, commencement
 July 1-2 Saratoga, State Teachers Association
 Aug. 5 Scottsville, district meeting

1901

Eugene W. Lytle

- Oct. 24-25 Auburn, Council of Superintendents
 Nov. 29-30 Syracuse, Association of Colleges and Preparatory Schools of the Middle States and Maryland
 Dec. 14 Jamestown, teachers meeting
 Dec. 27-29 Syracuse, Associated Academic Principals
 Dec. 30-31 Washington D. C., American Historical Association

1902

- Feb. 7 New York, History Teachers Club
 Feb. 27 Potsdam, St Lawrence Co. Schoolmasters Club
 Mar. 4 Hudson, teachers meeting
 Mar. 7 Watervliet, teachers meeting
 Mar. 8 Albany, Hudson River Schoolmasters Club
 Ap. 11 New York, History Teachers Club
 May 6 Madrid, school district meeting

- June 23 Willsboro, commencement
 June 24 Granville, commencement
 June 25 Troy, La Salle Institute, commencement
 June 26 Boonville, commencement
 July 1-2 Saratoga, State Teachers Association
 July 7-12 Minneapolis Minn., National Educational Association

1901

Ezra J. Peck

- Dec. 7 Clifton Springs, Ontario Co. Teachers Association

1902

- Feb. 14 Interlake Principals Conference
 Feb. 20 Belmont, Allegany Co. Teachers Association
 May 19 Freeville, teachers association
 June 20 Manchester, commencement
 June 23 Ontario, commencement
 June 24 Livonia, commencement
 June 25 Almond, commencement

1901

E. S. Frisbee

- Nov. 29-30 Syracuse, Association of Colleges and Preparatory Schools of the Middle States and Maryland
 Dec. 26-28 Syracuse, Associated Academic Principals

1902

- June 23 Albany, Christian Brothers Academy, commencement
 June 24 Verona, commencement
 June 25 South Glens Falls, commencement

1901

I. O. Crissy

- Sep. 6 North Tonawanda, dedication Felton High School
 Oct. 23-24 Auburn, Council of Superintendents
 Nov. 9 Albany, Hudson River Schoolmasters Club

1902

- Jan. 4 New York, Commercial Teachers Association
 Feb. 15 Piermont, Tappan Zee High School, Rockland Co. Teachers Association
 Mar. 3 Poughkeepsie, joint meeting of New Paltz Normal School and Eastman business school as a farewell to the president-elect of Cuba
 Mar. 27-28 Philadelphia Pa., Eastern Commercial Teachers Association

May 2 Ravenna, Arbor day exercises

July 7-11 Minneapolis Minn., National Educational Association, department of business education

L Names changed in 1902

From	To	Date
Clifton Springs Union and Classical School (acad. dep't).....	Clifton Springs High School	19 D 01
St Francis Xavier's Academic School (Brooklyn).....	St Francis Xavier's Academy.....	19 D 01
Starkey Seminary, Eddytown....	Palmer Institute-Starkey Seminary	19 D 01

M Teaching

Summary of charters

NAME	Postoffice	County	Date	Grade	Inspectors
Permanent charters					
De La Salle Institute.....	New York.....	New York.....	8 My 02	acad.	C
St Bridget's Acad. Sch. of Buffalo..	Buffalo.....	Erie.....	19 D 01	j. a.	A
St Francis Academy.....	Brooklyn.....	Kings.....	8 My 02	acad.	C
St Joseph's Collegiate Institute.....	Buffalo.....	Erie.....	19 D 01	acad.	A
St Mary's Academy of Glens Falls...	Glens Falls...	Warren.....	8 My 02	acad.	L
Academic departments admitted					
Apalachin Union School.....	Apalachin.....	Tioga.....	19 D 01	j.	Pk
Berkshire Union School.....	Berkshire.....	Tioga.....	8 My 02	j.	Pk
Berlin Union School.....	Berlin.....	Rensselaer.....	8 My 02	j.	F
Buchanan Union School.....	Buchanan.....	Westchester.....	19 D 01	j.	D
Dannemora Union School.....	Dannemora.....	Clinton.....	19 D 01	j.	L
Edwards Union School.....	Edwards.....	St Lawrence.....	8 My 02	j.	L
Fillmore Union School.....	Fillmore.....	Allegany.....	19 D 01	j.	Pk
Forestport Union School.....	Forestport.....	Oneida.....	8 My 02	j.	L
Freedom Union School.....	Freedom.....	Cattaraugus.....	19 D 01	j.	A
Groveland Union School.....	Groveland.....	Livingston.....	2 JI 02	j.	A
Holland Union School.....	Holland.....	Erie.....	19 D 01	j.	A
Kinderhook Union School.....	Kinderhook.....	Columbia.....	19 D 01	m.	F
La Fayette Union School.....	La Fayette.....	Onondaga.....	8 My 02	j.	A
Lyons Falls Union School.....	Lyons Falls.....	Lewis.....	19 D 01	j.	L
Lysander Union School.....	Lysander.....	Onondaga.....	8 My 02	j.	A
Manchester Union School.....	Manchester.....	Ontario.....	19 D 01	j.	A
Meridian Union School.....	Meridian.....	Cayuga.....	19 D 01	j.	A
New Woodstock Union School.....	New Woodstock.....	Madison.....	19 D 01	j.	Pk
Ocean Side Union School.....	Ocean Side.....	Nassau.....	2 JI 02	j.	A
Plainville Union School.....	Plainville.....	Onondaga.....	19 D 01	j.	A
Pleasantville Union School.....	Pleasantville.....	Westchester.....	8 My 02	j.	C
Richmondville Union School.....	Richmondville.....	Schoharie.....	19 D 01	j.	Cl
Round Lake Union School.....	Round Lake.....	Saratoga.....	19 D 01	j.	Cl
Sodus Union School.....	Sodus.....	Wayne.....	19 D 01	s.	A
South Dayton Union School.....	South Dayton.....	Cattaraugus.....	19 D 01	j.	A
Spencertown Union School.....	Spencertown.....	Columbia.....	19 D 01	j.	F
Suffern Union School.....	Suffern.....	Rockland.....	8 My 02	j.	Cl
Turner Union School.....	Turner.....	Orange.....	8 My 02	j.	Cl
Wappingers Falls Union School.....	Wappingers Falls	Dutchess.....	19 D 01	j.	F
Total.....					
Average.....					

Action rescinded. 19 D 01. Berkeley school, New York, having failed to comply with conditions of incorporation, the action of the Regents on Mar. 14, 1901, relating to the school is rescinded. **Clinton Liberal Institute.** 19 D 01. 30 days' notice of the proposed action having been given to the trustees of Clinton Liberal Institute, Fort Plain, permission is given said institution to remove to Canton to carry on its work in conjunction with St Lawrence University. **Pocantico Hills Union School.** 19 D 01. Having found on official inspection that academic work has been discontinued in Pocantico Hills Union School, the academic department is dropped from the University roll. **St Faith's School.** 8 My 02. New board of trustees appointed by Regents. **Stapleton High School.** 2 JI 02. Regents approved the action of the board of education of the city of New York in consolidating the Tottenville High School with the Stapleton High School. **Leases approved.** 19 D 01. Lansingburg Academy to board of education of Lansingburg, and Round Lake Summer Institute to board of education of Round Lake. **Charter amended.** 8 My 02. Hartwick Seminary. The part relating to the election of president of the board of trustees and to the calling of special meetings. **Reincorporated.** 8 My 02. On unanimous request of the trustees of Holy Angels College, provisionally chartered Nov. 4, 1897, the Regents granted an academy charter under the name of Holy Angels Collegiate Institute in place of the provisional college charter.

a Subject to inspection. b A=S. Dwight Arms; C=Charles N. Cobb; Cl=Arthur G. Clement; D=Charles Davidson; F=Edward S. Friess; L=Eugene W. Lytle; Pk=Esra J. Peck.

institutions

and admissions 1901-2

VALUE OF							Debts	Net property
Grounds	Buildings	Furniture	Library	Apparatus	Museum	Other property		
\$300 000 ..	\$100 000 ..	?	\$5 000	757 000 ..	\$1 350 ..		\$125 000 ..	\$288 350 ..
22 300 ..	75 000 ..	783 650 ..	403 71	207 ..		\$108 500 ..	40 000 ..	170 060 71
?	25 000 ..	1 000 ..	500	71 458 ..	350 ..	427 ..	2 500 ..	76 235 ..
40 000 ..	20 000 ..	21 110 ..	2 000	500 ..	200 ..		20 000 ..	43 810 ..
4 000 ..	30 000 ..	75 457 20	500 ..	800 ..	32 ..			40 789 20
500 ..	2 000 ..	7325 ..	228 ..	150 ..				3 203 ..
1 000 ..	3 500 ..	511 71	216 ..	7125 ..		687 60 ..		6 040 61
200 ..	4 000 ..	60 ..	218 ..	129 ..	34 95	1 000 ..		5 639 95
1 000 ..	3 000 ..	200 ..	239 ..	215 ..				4 654 ..
1 000 ..	2 500 ..	359 50	205 20	101 10			275 ..	3 890 80
500 ..	2 500 ..	?	209 ..	145 ..	1 35	20 ..		4 375 85
500 ..	5 000 ..	500 ..	A115 ..	183 50		6 000 ..	46 000 ..	6 248 50
300 ..	1 175 ..	?	A108 35	100 ..				1 681 35
300 ..	1 500 ..	7215 ..	222 60	106 20				2 343 80
600 ..	4 200 ..	7612 20	171 70	91 ..				5 674 90
500 ..	4 000 ..	7265 ..	7215 ..	100 15				5 080 15
2 000 ..	6 000 ..	15 ..	350 ..	170 74	1 50	15 52		8 552 76
300 ..	3 000 ..	500 ..	200 ..	100 ..	10 ..			4 110 ..
400 ..	8 000 ..	7770 ..	210 ..	115 ..	5 ..	3 500 ..	48 000 ..	5 000 ..
500 ..	3 000 ..	400 ..	200 ..	100 ..				4 200 ..
500 ..	10 000 ..	7800 ..	208 06	101 ..		1 100 ..	44 000 ..	8 709 06
500 ..	3 000 ..	40 ..	203 66	116 55				3 880 21
300 ..	1 500 ..	300 ..	7200 ..	125 ..		600 ..		3 025 ..
800 ..	5 000 ..	1 128 50	212 67	110 45				7 249 62
300 ..	1 500 ..	7284 70	209 56	100 ..	4 ..			2 398 26
71 500 ..	77 000 ..	771 225 ..	A168 ..	125 ..		3 113 49		13 131 49
1 200 ..	711 000 ..	785 ..	7302 80	7100 ..				12 687 80
500 ..	6 000 ..	7220 ..	500 ..	500 ..				7 720 ..
1 500 ..	3 000 ..	437 ..	593 63	437 10				5 967 73
300 ..	3 400 ..	765 ..	213 55	123 50				4 102 05
200 ..	1 800 ..	7130 ..	206 18	151 50				2 487 68
2 000 ..	25 000 ..	550 ..	200 ..	100 ..				27 850 ..
1 500 ..	8 000 ..	500 ..	200 ..	200 ..				10 400 ..
1 200 ..	12 000 ..	890 ..	242 63	250 ..		3 144 31		17 726 94
\$388 200 ..	\$382 575 ..	\$22 603 81	\$15 168 30	\$14 386 79	\$1 988 80	\$128 108 22	\$205 775 ..	\$747 255 90
11 763 64	11 252 21	729 16	446 13	423 14	198 88	10 675 69	25 721 88	21 978 10

c Including old buildings. d Including grounds. e New building. f Including musical instruments. g Included in musical instruments and typewriters. h Public library completes requirement. i Bonded debt. j Leased

N Preliminary and academic studies table

	SUBJECTS	Total no. of schools reporting	SUMMARY OF CRITICISMS FOR 1902									
			SATISFACTORY		TOO LONG		TOO SHORT		TOO HARD		TOO EASY	
			Total	Per cent	Total	Per cent	Total	Per cent	Total	Per cent	Total	Per cent
1	Reading.....											
2	Writing.....											
3	Spelling.....	1 552	1 488	95.9	1	.1			42	2.7	22	1.4
4	English, elementary.....	1 554	1 490	95.9	6	.4	2	.1	57	3.7	1	.1
5	Arithmetic.....	1 577	1 507	95.6	8	.5			59	3.7	4	.3
6	Geography.....	1 561	1 462	93.7	5	.3			93	6	2	.1
7	English, 1st year.....	394	370	93.9	11	2.8			17	4.3		
8	English, advanced.....	1 276	1 203	94.3	3	.2			70	5.5		
9	English composition.....	1 184	1 161	98	6	.5	1	.1	16	1.4		
10	English, 2d year.....	300	286	95.3	9	3			7	2.3		
11	Rhetoric.....	930	897	96.5	10	1.1			25	2.7		
12	American selections.....	466	462	99.1					4	.9		
13	English, 3d year.....	120	110	91.7	8	6.7			3	2.5		
14	English comp., advanced.....	416	404	97.5	5	1.2			8	1.4		
15	English selections.....	250	241	96.4					9	3.6		
16	English reading.....	346	331	95.7	5	1.5			9	2.6	1	.3
17	History of literature.....	303	257	84.8	7	2.3			41	13.5		
18	Business English.....	214	199	93	12	5.6			4	1.9		
19	German, 1st year.....	846	793	93.7	2	.2			51	6		
20	German, 2d year.....	514	460	89.5	1	.2			52	10.1	1	.2
21	German, 3d year.....	241	231	95.9					10	4.1		
22	French, 1st year.....	332	328	98.8					3	.9	1	.3
23	French, 2d year.....	267	249	93.3					17	6.4	1	.4
24	French, 3d year.....	152	149	98					3	2	1	.7
25	Spanish, 1st year.....	43	43	100								
26	Spanish, 2d year.....	39	38	97.4					1	2.6		
27	Spanish, 3d year.....	30	30	100								
28	Latin, 1st year.....	1 142	1 098	96.1	1	.1			41	3.6	2	.2
29	Latin, 2d year.....	160	158	98.8					2	1.3		
30	Caesar's Commentaries.....	882	864	98	2	.2			15	1.7	2	.2
31	Latin, 3d year.....	93	93	100								
32	Sallust's Catiline.....	148	147	99.3					1	.7		
33	Cicero's Orations.....	467	463	99.1					4	.9		
34	Virgil's Aeneid.....	392	391	99.7					1	.3		
35	Virgil's Eclogues.....	93	93	100								
36	Latin composition.....	284	283	99.6							1	.4
37	Greek, 1st year.....	176	171	97.1	3	1.7			3	1.7		
38	Greek, 2d year.....	55	54	98.1					1	1.8		
39	Xenophon's Anabasis.....	173	170	98.2	1	.6			2	.2		
40	Homer's Iliad.....	106	106	100								

N Preliminary and academic studies table (concluded)

SUBJECTS		Total no. of schools reporting	SUMMARY OF CRITICISMS FOR 1902										
			SATISFACTORY		TOO LONG		TOO SHORT		TOO HARD		TOO EASY		
			Total	Per cent	Total	Per cent	Total	Per cent	Total	Per cent	Total	Per cent	
41	Greek, 3d year.....	30	30	100	.....	.....	.....	.....	.....	.....	.....	.....	.....
42	Greek composition.....	77	75	97.4	.....	.....	.....	.....	2	2.6	.....	.....	.....
43	Arithmetic, advanced.....	429	419	97.7	2	.5	.....	.....	7	1.6	1	.2	.....
44	Algebra.....	1 371	1 302	95	5	.4	17	1.2	24	1.8	26	1.9	.....
45	Algebra, advanced.....	177	152	85.9	2	1.1	.....	.....	23	13	.....	.....	.....
46	Plane geometry.....	1 121	1 055	94	42	3.7	.....	.....	33	2.9	1	.1	.....
47	Solid geometry.....	288	262	91	11	3.9	.....	.....	16	5.6	1	.3	.....
48	Trigonometry.....	149	113	75.8	32	21.5	1	.7	5	3.4	.....	.....	.....
49	Business arithmetic.....	380	288	75.8	73	19.2	.....	.....	32	8.4	.....	.....	.....
50	Astronomy.....	171	170	99.4	.....	.....	.....	.....	1	.6	.....	.....	.....
51	Physics.....	730	708	97	2	.3	1	.1	15	2.1	5	.7	.....
52	Chemistry.....	298	291	97.7	.....	.....	.....	.....	3	1	4	1.3	.....
53	Physical geography.....	1 112	886	79.7	4	.4	1	.1	225	20.2	.....	.....	.....
54	Geology.....	326	303	92.9	.....	.....	.....	.....	23	6.9	.....	.....	.....
55	Botany.....	308	273	88.6	2	.6	.....	.....	35	11.4	.....	.....	.....
56	Zoology.....	171	158	92.4	3	1.8	.....	.....	12	7	.....	.....	.....
57	Physiology and hygiene.....	1 311	1 285	98	1	.1	.....	.....	23	1.8	3	.2	.....
58	Elem. U. S. hist. and civics.....	1 403	1 376	98.7	3	.2	2	.1	17	1.2	7	.5	.....
59	Greek history.....	435	427	97.1	2	.5	.....	.....	5	1.1	1	.2	.....
60	Roman history.....	507	491	96.8	4	.8	.....	.....	13	2.6	.....	.....	.....
61	Medieval history.....	149	146	98	1	.7	.....	.....	1	.7	1	.7	.....
62	English history.....	593	563	94.9	8	1.3	1	.2	23	3.9	.....	.....	.....
63	U. S. history, advanced.....	388	376	96.9	7	1.8	.....	.....	7	1.8	.....	.....	.....
64	Civics.....	1 301	1 262	97	1	.1	.....	.....	35	2.7	3	.2	.....
65	Economics.....	576	566	98.3	1	.2	.....	.....	8	1.4	1	.2	.....
66	Commercial geography.....	313	310	99	1	.3	.....	.....	1	.3	1	.3	.....
67	Commercial law.....	99	94	94.9	1	1.1	.....	.....	4	4	.....	.....	.....
68	History of commerce.....	63	61	96.8	1	1.6	.....	.....	1	1.6	.....	.....	.....
69	Stenography, 50 word test.....	85	84	98.8	1	1.2	.....	.....	.....	.....	.....	.....	.....
70	Stenography, 100 word test.....	46	45	97.8	1	2.2	.....	.....	.....	.....	.....	.....	.....
71	Bookkeeping.....	702	635	90.5	43	6.1	.....	.....	31	4.4	.....	.....	.....
72	Bookkeeping, advanced.....	62	46	74.2	15	24.2	.....	.....	1	1.6	.....	.....	.....
73	Business practice, etc.....	55	51	92.7	4	7.3	.....	.....	.....	.....	.....	.....	.....
74	Business writing.....	205	199	97.1	6	2.9	.....	.....	.....	.....	.....	.....	.....
75	Typewriting.....	74	74	100	.....	.....	.....	.....	.....	.....	.....	.....	.....
76	Drawing.....	1 004	969	96.5	7	.7	.....	.....	27	2.7	1	.1	.....
77	Advanced drawing.....	579	570	98.4	3	.5			3	.5	3	.5	
78	Psychology.....												
79	Word analysis.....												
80	Manual training.....												



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High School Department

PUBLICATIONS

Examination Department reports 1894-97. O. 75c a vol.

Till 1894 these reports formed part of the general University reports, known as the Regents reports. They cover courses of study in secondary schools, examination of professional students, licensing examinations for physicians, dentists, veterinary surgeons and certified public accountants.

Continued in 1898 as reports of College and High School Departments.

Examination Department bulletins 1895-98. O. To advance subscribers 50c a year.

B4 (Examinations 1) Regents Examinations. 82p. Nov. 1890. 10c.

Historical sketch, laws, ordinances and rules pertaining to all examinations conducted by the Regents; details as to all University credentials; subjects, times and places of examinations 1891-95; notes on the reorganization of 1890.

B5 (Examinations 2) Academic Syllabus. 174p. Ap. 1891.
Replaced by X8.

B10 (Examinations 3) Medical Syllabus. 30p. Oct. 1892.
Replaced by X7.

B13 (Examinations 4) Law Syllabus. 120p. Mar. 1893. *Out of print.*
Outline of ground covered by examinations for the Regents degree of bachelor of laws.

B23 (Examinations 5) Report of Examination Department 1893.
82p. Feb. 1894. 10c.

X6 Report of Examination Department 1894. 126p. Mar. 1895. 15c.

X7 Medical Syllabus. 128p. Mar. 1895. 25c.

Outline of ground covered by state licensing examinations, prepared under direction of state boards of medical examiners for guidance of candidates.

X8 Academic Syllabus. 204p. June 1895. *Replaced by X24.*

Syllabus of Form Study and Drawing. 30p. 32pl. 25c.

Reprint of p.410-84d and plates from X8.

X9 Report of Examination Department 1895. 108p. Feb. 1896. 15c.

X10 Examination Papers 1896. 502p. Oct. 1896. 50c; *small size uniform with previous volumes 25c, boards 50c.*

See also Question papers.

X11 Davis, W: M. (Harvard) State Map of New York as an Aid to the Study of Geography. 28p. Nov. 1896. 5c.

Based on the topographic map in preparation by the United States Geological Survey.

X12 Report of Examination Department 1896. 114p. Jan. 1897. 15c.

X13 College-entrance English. 148p. June 1897. 15c.

Present English entrance requirements of representative colleges and universities. Also discussions on aims and methods in teaching secondary school English.

X14 Examination Papers 1897. 578p. Aug. 1897. *Price, see X10.*

X15 Report of Examination Department 1897. 120p. Nov. 1897. 15c.

X16 Examination Papers 1898. 512p. Sep. 1898. *Price, see X10.*

The second edition contains only the academic papers, the professional papers being printed separately as College bulletin 3.

High School Department reports 1898-date. O. 75c a vol.
High School Department bulletins 1898-date. To advance subscribers 50c a year.

- X17 (High school 1) Director's Report 1898. Mar. 1899. 122p. 15c.
X18 (High school 2) State Science Teachers Association. Proceedings of the Third Annual Meeting, Dec. 1898. 202p. Nov. 1899. *Out of print.*
X19 (High school 3) Associated Academic Principals. Proceedings of the 14th Annual Conference, Dec. 1898. 236p. Dec. 1899. 25c.
X20 (High school 4) Academic Examination Papers 1899. 306p. Oct. 1899. 25c. *Small size 12 5 x 20 cm, 25c; boards, 50c.*
X21 (High school 5) Director's Report 1899. 70p. Feb. 1900. 10c.
X22 (High school 6) Associated Academic Principals. Proceedings of the 15th Annual Conference, Dec. 1899. 188p. Mar. 1900. 20c.
X23 (High school 7) State Science Teachers Association. Proceedings of the Fourth Annual Meeting, Dec. 1899. 302p. May 1900. 35c.
X24 (High school 8) Academic Syllabus. 226p. Ap. 1900. 25c; cloth, 50c.

The University declines to recommend any special textbooks, but for the guidance of teachers and students it specifies the ground covered by the preliminary and academic subjects. This syllabus is the best available outline of what should be accomplished in these subjects.

- X25 (High school 9) Manual Training Syllabus. 60p. May 1900. 10c.
X26 (High school 10) Academic Examination Papers 1900. 306p. Aug. 1900. *Price, see X20.*
X27 (High school 11) Director's Report 1900. 38p. Feb. 1901. 5c.
X28 (High school 12) Associated Academic Principals. Proceedings of the 16th Annual Conference, Dec. 1900. 164p. Ap. 1901. 25c.
X29 (High school 13) State Science Teachers Association. Proceedings of the Fifth Annual Conference, Dec. 1900. 250p. May 1901. 35c.
X30 (High school 14) Academic Examination Papers 1901. 322p. Aug. 1901. 25c; boards, 50c.
X31 (High school 15) Director's Report 1901. 34p. Jan. 1902. 10c.
X32 (High school 16) Associated Academic Principals. Proceedings of the 17th Annual Conference, Dec. 1901. 196p. Mar. 1902. 25c.
X33 (High school 17) State Science Teachers Association. Proceedings of the Sixth Annual Conference, Dec. 1901. 312p. Oct. 1902. 40c.
X34 (High school 18) Academic Examination Papers 1902. 316p. July 1902. 25c; boards, 50c.
X35 (High school 19) Associated Academic Principals. Proceedings of the 18th Annual Conference, Dec. 1902. 136p. June 1903. 20c.
X36 (High School 20) Director's Report 1902. 38p. July 1903. 10c.
- Question papers. For the academic year 1892 (v. 1); 1893 (v. 2); 1894 (v. 3); 1895 (v. 4). D. 25c; boards, 50c.

For 1896-1902 see X10, X14, X16, X20, X26, X30, X34. Till 1898 each volume contained all the Regents question papers of that year in any of the academic, professional law, medical, dental, veterinary, library and extension examinations. After the first edition of the 1898 examination papers the academic and professional papers were separated.

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Bulletin 81

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A SELECTION FROM THE

BEST BOOKS OF 1902

WITH NOTES

To the Librarian

PREFATORY NOTE

This is an annotated list of 250 books published in the United States in 1902, selected by the book board of the New York State Library and recommended to the public libraries of the State. To aid in choosing small collections of new books three classes are marked: books marked *a*, of which there are 20, are suggested to libraries which must confine their additions within narrow limits; 30 others marked *b* are also proposed to libraries prepared to buy 50 books; and 50 more marked *c* may be added to *a* and *b* to make up 100 books.

The remaining 150, including reference books and a few more costly publications, are worthy of careful consideration by libraries prepared to buy more than 100 books and by those wishing to enlarge their resources in special subjects. Many of the unmarked works are of the highest merit. *Decimal Classification* numbers as used in the New York State Library are prefixed as a guide to libraries using this system. Serial numbers of the Library of Congress printed catalogue cards are given in note type, for the convenience of libraries wishing to order them.

While this list has been prepared with special reference to the smaller public libraries, and some of these books are not recommended for school use, it will also be of much service to the schools. Almost all the list is available. Any book under the heading "Juvenile" may be bought for academic libraries. But there are some books of fiction found here which serve a legitimate purpose in the public library by providing wholesome entertainment for a very different class of readers, yet have not enough positive value, either as literature or as a spur to historical study to justify their purchase by the school.

Copies of this list may be obtained for 10 cents from the **New York State Library, Albany N. Y.**

MELVIL DEWEY

Albany, June 24, 1903

REFERENCE BOOKS

- 016 *a* Kroeger, A. B. Guide to the Study of Reference Books. Houghton net \$1.25
- 2-25789 For librarians, teachers and students. Arrangement based on *Decimal Classification*. Gives author, full title, size, illustrations, publisher, price, brief descriptive note. Author and subject index, list of 100 reference books for smaller library.
- 016.97 *c* Larned, J. N. *ed.* Literature of American History. Houghton net \$6
- 2-15885 About 4000 titles. Classified and indexed, with notes on scope, character and comparative worth, signed by specialists or quoted from reviews. Valuable feature that poor books likely to be considered are included and criticized.
- — — Supplement for 1900 and 1901; *ed.* by P. P. Wells. Houghton net \$1
- 3-727 Nearly 200 entries in one alphabet. Notes generally condensed from reputable reviews, signed where practicable. Future supplements will be issued also on cards.
- 025.3 Hasse, A. R. *comp.* United States Government Publications: a Handbook for the Cataloguer. pt 1, The Government at Large, the Constitution, Statutes, Treaties. Library Bureau \$1
- 2-14900 Briefly explains character and principles governing treatment of each type of publication for dictionary catalogue, and gives sample cards. Three parts, on the legislative body, the executive body and the judiciary are to follow.
- 029.5 Wheatley, H: B: How to Make an Index. (Book-lover's Lib.) Armstrong \$1.25
- 2-21245 Includes much matter from his *What is an Index* (o.p.) with practical additions. Entertaining and valuable in statement of principles and illustrations, but recommends some antiquated clerical methods.
- 808.8 Reynolds, Cuyler. Banquet Book. Putnam net \$1.75
- 2-10350 Classified quotations to aid in preparation of toast list, with suggestions about menu and proper ordering of banquets.

PHILOSOPHY AND ETHICS

- 150 Compayré, Gabriel. Later Infancy of the Child. (Internat. Educ. Ser. no. 53) Appleton net \$1.20
- 2-20308 Pt 2 of his *Intellectual and Moral Development of the Child*. Imitation and curiosity, judgment and reasoning, learning to speak, walking and play, development of moral sense, faults and virtues, morbid tendencies, sense of personality.
- 170 *c* Hale, E: E. How to Live. Little \$1
- 2-23972 Talks on best ways to meet daily personal duties and necessities. Prepared for Chautauqua reading course. Practical, direct, informal.
- 172.1 Brewer, D: J. American Citizenship. (Yale Lectures on the Responsibilities of Citizenship) Scribner net 75c
- 2-11625 Strong appeal to young men to cherish high ideals of national and social life, by Justice Brewer.

- 172.1 Potter, H: C. The Citizen in his Relation to the Industrial Situation. (Yale Lectures on the Responsibilities of Citizenship) Scribner net \$1
- 2-25774 Holds high standards of duty before the citizen in his relations with workingman, capitalist, consumer, corporation and state.

RELIGION

See also Juvenile, p. 221

- 201 a James, William. Varieties of Religious Experience. (Gifford Lectures, 3d ser.) Longmans net \$3.20
- 2-16221 Psychologic study of personal religion in widely different manifestations. Open-minded, sympathetic, clear and fresh in style.
- 204 Everett, C: C. Immortality and other Essays. Amer. Unitarian Ass'n net \$1.20
- 2-29273 Shows power to treat abstruse themes of religion and philosophy in a manner at once scholarly, clear, simple and convincing. *Dial*
- 240 c Hyde, W: DeW. Jesus' Way. Houghton net \$1
- 2-24392 Shows that the teachings of Jesus offered originally not a theological system, but a simple and still practical way of living.
- 252.03 Brooks, Phillips. Law of Growth and other Sermons. Dutton net \$1.20
- 2-9996 21 sermons, mainly from New Testament texts, preached from 1874-90. v. 9 of series.
- 261 Gladden, Washington. Social Salvation. Houghton net \$1
- 2-12265 Yale lectures on relation of churches and pastors to care of poor, the unemployed, prisoners, social vices, public education, municipal reform. Addressed to theological students but good reading for all thoughtful men interested in great social questions of the day. *Critic*
- 261.6 Strong, Josiah. Next Great Awakening. Baker & T. 75c
- 2-9162 Shows where principles of Christianity are practically ignored in business and social organizations and sketches needed reformation.
- 266 Beach, H. P. Geography and Atlas of Protestant Missions. v. 1, Geography; v. 2, Statistics and Atlas. Student Volunteer Movement \$4
- 2-752 Geography, people, prevailing religion, present missionary force, work and outlook in each country. List of missionary contributors, bibliography and index. Maps, by Bartholomew, clear and detailed.
- 266 Dennis, J. S. Centennial Survey of Foreign Missions. Revell net \$4
- 2-4703 Elaborate statistical supplement to his *Christian Missions and Social Progress*, giving in tabular form an admirable statement of the present situation in protestant missions. Illustrations and maps. Oblong quarto.
- 277.3 b Abbott, E. H. Religious Life in America. Outlook Co. net \$1
- 2-28397 Personal observation of religious life, pastoral relations, denominational preferences and effects, class attitudes toward religion, foreign influences, etc. during three months' journey.

- 298 Linn, W: A. Story of the Mormons. Macmillan net \$4
 2-4701 Secular, not religious, stating facts and avoiding as far as possible moral deductions. Based mainly on original Mormon publications. Most complete history of the Mormons yet written. (1902) *Athenaeum*

P
SOCIOLOGY

- 304 a Addams, Jane. Democracy and Social Ethics. (Citizens' Lib.) Macmillan net \$1.25
 2-10126 Discusses charitable effort, relation between family and social duties for unmarried women, household service, unfitness to practical needs of education offered the poor, political reform, industrial problems.
 309 Kropotkin, P. A. *prince*. Mutual Aid: a Factor of Evolution. McClure net \$2.50
 3-886 Maintains that mutual aid rather than contest is the important factor in progressive evolution of men and animals. Sociologic rather than biologic.
 322 Cobb, S. H. Rise of Religious Liberty in America. Macmillan net \$4
 2-13240 Groups a mass of material which makes a distinct and, in the main, accurate impression in total effect, but is marred by many errors in detail. *Nation*
 325 b Colquhoun, A. R. Mastery of the Pacific. Macmillan net \$4
 2-6141 Surveys history, present conditions, and probabilities of ultimate control by each of the leading nations. Popular; based on wide observation. Maps and illustrations.
 325.2914 Schurman, J. G. Philippine Affairs; a Retrospect and Outlook. Scribner net 60c
 2-3912 Summarizes investigations of Philippines commission, discusses present situation and recommends temporary American protectorate and ultimate self-government.
 330.4 c Carnegie, Andrew. Empire of Business. Doubleday \$3
 2-11624 17 popular essays and addresses on essentials to business success, trusts, the tariff, railroads, iron and steel trade, comparative cost of living in Great Britain and United States, etc.
 331 American Academy of Political and Social Science. Social Legislation and Social Activity. McClure net \$1.50
 3-4715 Addresses at sixth annual meeting, on Social Effects of Transportation; Industrial Conciliation and Arbitration; The Housing Problem; Child Labor; Factory Legislation and Inspection; Juvenile Courts.
 331 National Conference on Industrial Conciliation. Report of the Proceedings, 1901. (Questions of the Day) Putnam \$1.25
 2-26503 Report of New York conference, 1901, and Chicago conference, 1900. Speakers include Oscar L. Strauss, Charles M. Schwab, Frank P. Sargent, Samuel Gompers, John Mitchell, Carroll D. Wright, Archbishop Ireland, James Duncan, Martin Fox, and many others.

- 331 **Peters, J. P. ed.** *Labor and Capital.* (Questions of the Day) Putnam \$1.50
- 2-13401 Result of newspaper symposium by about 50 well known representatives of trusts, corporations, trade unions, professional economists philanthropists and lawyers.
- 331 **Wright, C. D.** *Some Ethical Phases of the Labor Question.* Amer. Unitarian Ass'n net \$1
- 2-24907 Four essays on religion in relation to sociology, political economy and the labor question, the factory system and prison labor.
- 331.8 **Betts, L. W.** *The Leaven in a Great City.* Dodd net \$1.50
- 2-23322 Tenement life. Supplements Riis's books by laying stress on work of women's and girls' clubs and of Rivington st. settlement. Photographs. Valuable contribution to consideration of city problem. *Nation*
- 331.8 **Riis, J. A.** *Battle with the Slum.* Macmillan net \$2
- 2-25775 Much enlarged, illustrated edition of his *Ten Years' War* (1900), describing struggle against the slum, the tenement and the gang.
- 331.8 **Woods, R. A. ed.** *Americans in Process: a Settlement Study.* Houghton net \$1.50
- 2-30142 Social, political and religious conditions among foreigners in north and west ends of Boston. Supplements *The City Wilderness*. Informing and readable.
- 332 **Burton, T. E.** *Financial Crises and Periods of Industrial and Commercial Depression.* Appleton net \$1.40
- 2-3922 Defines terms, discusses indications, accompanying conditions, causes and preventives; brief history of crises and depressions in United States. Diagrams, bibliography, index.
- 332 **Cleveland, F. A.** *Funds and their Uses.* (Appleton's Business Ser.) Appleton net \$1.25
- 2-26500 What funds are, how obtained and how operated through United States treasury, saving and commercial banks, building associations, brokerage, trust and insurance companies. Popular; facsimiles of business paper.
- 338.8 **c Bolen, G. L.** *Plain Facts as to the Trusts and the Tariff.* Macmillan net \$1.50
- 2-21599 Puts difficult matters in terms comprehensible by majority. Chapters on railroad problem and municipal monopolies. Thoroughly useful and interesting, largely because it places facts above philosophy and offers no panacea for inherent ills. *Dial*
- 338.8 **Bridge, J. H. ed.** *The Trust: its Book.* Doubleday net \$1.25
- 2-16118 Eight essays by five contributors. Emphasizes importance of trust as an essential part of industrial system, and shows its advantages as a productive agent. *Dial*
- 352 **Zueblin, Charles.** *American Municipal Progress.* (Citizen's Lib.) Macmillan net \$1.25
- 2-24493 Survey of conditions in cities throughout country, as to transportation, sanitation, public schools, libraries, parks, buildings, recreation municipal ownership and operation, etc.

- 355.07 *c* Hancock, H. I. Life at West Point. Putnam net \$1.40
 2-15895 Describes making of army officer; his studies, discipline and amusements. Illustrated.
- 361 *c* Lee, Joseph. Constructive and Preventive Philanthropy. (Amer. Philanthropy of the 19th Century)
 Macmillan net \$1
- 2-29024 Introduction by Jacob Riis. Considers libraries, savings and loan associations, building laws, protection of homes, home industries, vacation schools, playgrounds, baths, clubs, industrial training, medical inspection, etc. Useful bibliographic notes.

EDUCATION

- 370 *a* Henderson, C. H. Education and the Larger Life.
 Houghton net \$1.30
- 2-11635 Original study of principles of education and their application in modern life. Makes against commercial view and for a harmonious development of the entire human organism.
 Its main value lies in its sincere and inspiring idealism. *Joseph Jastrow*
- 370 Oppenheim, Nathan. Mental Growth and Control.
 (Personal Problem Ser.) Macmillan net \$1
- 2-2275 Lays down definite yet elastic principles for guidance of intellectual life and upbuilding of character, based on physiologic and psychologic facts.
- 370.9 Ware, Fabian. Educational Foundations of Trade and Industry. (Internat. Educ. Ser. no. 54)
- 2-1219 Examines systems developed in Germany, France and United States for education of industrial classes, and points out need of organization in England.
- 374 *c* Lorimer, G: H. Letters from a Self-made Merchant to his Son.
 Small \$1.50
- 2-23991 Sound and homely advice on business and life in phraseology of a Chicago pork packer. The gist of it is: Live clean and sell hog at a profit.
- 378.42 *b* Corbin, John. An American at Oxford.
 Houghton net \$1.50
- 2-13234 Detailed description of student life at Oxford, with strong emphasis on athletics. Compares educational systems of Oxford and American universities, particularly Harvard.
- 387 Abbot, W. J: American Merchant Ships and Sailors.
 Dodd net \$2
- 2-25189 Popular account of development of merchant marine. Will be welcome alike to the youth who seeks amusement and his father who seeks information. *Nation*

NATURAL SCIENCE

See also Juvenile, p. 221

- 504 Miller, Mrs M. R. Brook Book. Doubleday net \$1.35
- 2-13643 Follows brook's course, describing animal and vegetable life throughout year. Conveys simply much interesting information. Specially beautiful photographs and excellent drawings. Author lecturer on nature study at Cornell.

- 507 *b* Hodge, C. F. Nature Study and Life. Ginn \$1.65
- 2-9148 Studies of animal and plant life, involving elementary practice in gardening, domestication of wild creatures, forestry etc. Valuable to parent and public as well as teacher. Well illustrated.
- 520.4 Jacoby, Harold. Practical Talks by an Astronomer. Scribner net \$1
- 2-10145 Navigation at sea, the Pleiads, temporary stars, Galileo, how to make a sundial, Saturn's rings, the heliometer, the moon hoax, etc.
- 523 Newcomb, Simon. Astronomy for Everybody. McClure net \$2
- 2-27948 Authoritative, up to date and written in simple style without technical or mathematical language. Illustrated.
- 529.78 Earle, Mrs Alice (Morse). Sun-dials and Roses of Yesterday. Macmillan net \$2.50
- 2-28497 Garden lore, compressing a mass of historical, descriptive, traditional and emblematic matter. Copiously illustrated, the sundials pictures generally satisfactory, the roses poor.
- 551.21 *a* Kennan, George. Tragedy of Pelée. Outlook Co. net \$1.50
- 2-26372 Author sailed for Martinique five days after destruction of St Pierre. Describes conditions and later eruptions from personal observation. Pictorial, dramatic and tragic rather than scientific aspects.
- 551.4 *c* Tarr, R. S. Physical Geography of New York State. Macmillan net \$3.50
- 2-15196 Detailed account of physical features, geologic relations, effects of glaciation, changes in progress, climate. Chapter on influence of physiographic features on industrial development. 210 illustrations, maps and diagrams.
- 551.5 Dunn, E. B. "Farmer Dunn" *pseud.* Weather and Practical Methods of Forecasting It. Dodd net \$1.60
- 3-738 Treated in clear, untechnical fashion. Aims to make information serviceable to farmers, sailors, physicians etc. Based on 30 years' experience in weather bureau.
- 580 *c* Mathews, F. S. Field Book of American Wild Flowers. Putnam net \$1.75
- 2-12933 Describes about 800 species with excellent drawings of large proportion and 24 colored plates. Arranged by families; avoids technicalities and makes special effort to define color. Most compact popular handbook yet provided. (1902)
- 581.974 Dame, L. L. & Brooks, Henry. Handbook of the Trees of New England. Ginn \$1.35
- 2-1057 Most convenient popular field book yet published. (1902) Gives habitat, range, clear, accurate description and excellent drawings of leaf, flower and fruit.
- Rogers's *Among Green Trees*, Mumford \$3, is an attractive home book for nature students and amateurs in forestry and tree identification.
- 590 Roberts, C: G: D. Kindred of the Wild. Page \$2
- 2-15335 Stories of wild animals studied in New Brunswick forests. Introductory essay on the "animal story."

- 590.4 a Long, W: J. School of the Woods. Ginn net \$1.50
 2-22702 Personal observations of animals and birds. Believes training by wild mothers more important than instinct. Thinks animal life on the whole more joyous than tragic. See opposing paper by John Burroughs, *Atlantic* 91:29 and reply by Mr Long, *No. Amer. Rev.* 176:688.
- 590.7 Smith, Eugene. Home Aquarium and How to Care for it. Dutton net \$1.20
- 2-18583 Illustrated handbook giving information about suitable plants, fish and other animals, arrangement, hygiene, food, collecting etc.
- 595.78 Eliot, I. M. & Soule, C. G. Caterpillars and their Moths. Century net \$2
- 2-22496 Clear directions for rearing and study, with life histories of 43 species. Specially valuable in presenting results of 20 years' experience. Photographs.
- 598.2 Bailey, Mrs Florence (Merriam). Handbook of Birds of the Western United States. Houghton net \$3.50
- 2-27502 Comprehensive manual complementing Chapman's *Handbook of Birds of Eastern North America*. Excellent keys and descriptions of form, appearance, nest, habits and landscape setting. 33 plates by Fuertes and over 600 cuts in text.
 Other good local books are: Maynard's *Birds of Washington* (D. C.) Woodward and Lothrop net \$1, a handbook; Keyser's *Birds of the Rockies*, McClurg net \$3, descriptive essays; Pearson's *Stories of Bird Life*, B. F. Johnson 50c, observations in the Carolinas.
- 598.2 b Doubleday, Mrs N. B. DeG. "Neltje Blanchan" pseud. How to Attract the Birds. Doubleday net \$1.35
- 2-26093 On habits, nest-building, coloration, economic value, with suggestions for attracting by calls, providing food plants, water, nesting places, etc. Beautifully illustrated. Suggestive and interesting to bird lovers who are not yet bird students.
- 598.2 Wheelock, Mrs I. G. Nestlings of Forest and Marsh. McClurg net \$1.40
- 2-10845 Painstaking and interesting studies in graceful language of bird babyhood. Photographic illustrations.
- 599 b Stone, Witmer & Cram, W: E. American Animals. Doubleday net \$3
- 2-26092 Popular guide to North American mammals. English and Latin names, brief descriptions and "intimate biographies" of more familiar species. Profuse illustration. Key to genera, bibliography and index.

USEFUL ARTS

See also Juvenile, p. 222

- 614.4 Sedgwick, W: T. Principles of Sanitary Science and Public Health. Macmillan net \$3
- 2-12928 With special reference to causes and prevention of infectious diseases. Thoroughly scientific but not too technical for the intelligent reader.
- 628 b Baker, M. N. Municipal Engineering and Sanitation. (Citizen's Lib.) Macmillan net \$1.25
- 2-766 Practical popular discussion of problems of transportation, communication, water, lighting, slaughter houses, sewage, street cleaning, smoke, noise, etc., public policy and finance.

- 631 **Newell, F. H.** Irrigation in the United States. Crowell net \$2
- 2-7133 Geographic conditions, methods of storing and distributing water, and marvelous results. But slightly technical, of practical value to farmer, abundantly illustrated. Author hydraulic engineer, United States Geological Survey.
- 634.9 **Fernow, B. E.** Economics of Forestry. (Lib. of Economics and Politics) Crowell net \$1.50
- 3-10 Discusses questions of economics together with practical details and necessities of forester's art. Reviews foreign policies and forestry movement in United States.
- 634.9 **Gifford, John.** Practical Forestry. Appleton net \$1.20
- 2-13657 Illustrated manual for beginners in forestry, agricultural students, woodland owners and others interested in forest preservation, on values, distribution, formation and culture of forests, government reservations, etc. Roth's *First Book of Forestry*, Ginn 75c, a small, much more elementary illustrated volume, is also commended.
- 636.7 **Young, E. R.** My Dogs in the Northland. Revell net \$1.25
- 2-22004 Stories of dogs, mongrels, St Bernards, Newfoundlands and Eskimos, driven in harness. By a missionary to Indians near Lake Winnipeg.
- 640 **Herrick, C. T.** In City Tents. Putnam net \$1
- 2-22868 How to find, furnish and keep a small home on slender means. Special reference to New York city.
- 641 **b Curtis, I. G.** Left-overs Made Palatable. Judd \$1
- 2-456 Based on actual results by good cooks, every recipe having also been tested at New England cooking school. A really practical aid to average housekeeper.
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- b* Cutting, M. S. Little Stories of Married Life. McClure \$1.25
- 2-23089 Episodes in lives of normal minded people in every day relations.
- a* Daskam, J. D. Madness of Philip, and other Tales of Childhood. McClure \$1.50
- 2-7299 Other stories: A Study in Piracy; Bobbert's Merry Christmas; The Heart of a Child; Ardelia in Arcady; Edgar, the Choir Boy Uncelestial; The Little God and Dickey.
 For grown people. First story an amusing and suggestive satire on certain kindergarten methods.
- Davis, R: H. Ranson's Folly. Scribner \$1.50
- 2-17864 Contains also, The Bar Sinister; A Derelict; La lettre d'amour; In the Fog.
- c* Dix, B. M. & Harper, C. A. The Beau's Comedy. Harper \$1.50
- 2-8859 Eighteenth century tale of a London youth mistaken for a French spy and unwillingly detained among Massachusetts country folk.
- c* Doyle, A. C. Hound of the Baskervilles. McClure \$1.25
- 2-9442 Thrilling tale of murder accomplished and murder attempted, with our old friend Sherlock Holmes revealing and confounding villany.
- Foote, Mrs M. H. The Desert and the Sown. Houghton \$1.50
- 2-13147 Study of effects on themselves and their children of the accidental separation of a husband and wife in early married life. Scenes, western army post and Hudson river valley.
- Foster, M. G. Heart of the Doctor. Houghton \$1.50
- 2-21980 Scene a Boston dispensary in Italian quarter.
- a* Garland, Hamlin. Captain of the Gray-horse Troop. Harper \$1.50
- 2-9343 Love and adventure on an Indian reservation. Hero, a cavalry officer, who succeeds a corrupt agent.
 An impressive appeal for the Indian. Dial

- a* Glasgow, Ellen. The Battleground. Doubleday \$1.50
- 2-8881 Virginia love story of Civil War period, written with insight and humor, from southern standpoint but entirely without bitterness.
- Hall, Ruth. A Downreuter's Son. Houghton \$1.50
- 2-21581 Love affairs among young people of Hudson river farms in time of 'antirent war,' 1846.
- c* Harland, Henry "Sidney Luska" *pseud.* The Lady Paramount. Lane \$1.50
- 2-11151 Dainty love comedy, alternating between England and Italy. Modern in setting but romantic in spirit, it is the antithesis of realism.
- Harris, J. C. "Uncle Remus" *pseud.* Making of a Statesman and other Stories. McClure \$1.25
- 2-9441 Contains also, A Child of Christmas; Flingin' Jim and his Fool-killer; Miss Puss's Parasol.
- Harte, F. B. Condensed Novels. 2d ser. Houghton \$1.25
- 2-23598 Burlesques of Anthony Hope, Conan Doyle, Hall Caine, Edward Westcott, Rudyard Kipling, Marie Corelli and the modern archaic tale.
- Henry, Arthur. An Island Cabin. McClure \$1.50
- 2-9448 Annals of a summer of primitive living on a tiny unclaimed island off the Connecticut coast.
- Hinkson, Mrs K. T. (Katharine Tynan). The Golden Lily. Benziger 40c
- Simple story of Mary Tudor's time, told in first person by a devout catholic, an artist in metal work.
- Hornung, E. W. Shadow of the Rope. Scribner \$1.50
- 2-21095 Ingenious and exciting story of a crime and its detection. Appeared in *Munsey's Magazine* under title *Shadow of the Law*.
- c* Howells, W: D. The Kentons. Harper \$1.50
- 2-11891 Vicissitudes of an excellent commonplace Ohio family during a European trip undertaken to divert the eldest daughter from an undesirable match.
- Johnston, Mary. Audrey. Houghton \$1.50
- 2-4948 Virginia romance, with highly dramatic and tragic elements. Historical setting, early 18th century.
- King, M. E. Bread and Wine. Houghton \$1.25
- 2-13398 Swiss pastoral of married love and temporary estrangement. Fine in tone and written with skilful simplicity.
- b* Martin, G: M. Emmy Lou: her Book and Heart. McClure \$1.50
- 2-27731 School days of a bewildered and very real little girl. Incidentally satirizes some school methods and manners. Interesting to adults mainly.
- c* Mason, A. E: W. Four Feathers. Macmillan \$1.50
- 2-25599 Painful story, worked out with power and beauty, of the restoration of a brave man who in morbid fear of showing cowardice, becomes coward in eyes of friends.

- Mason, C. A.** The Little Green God. Revell 75c
- 2-18093 Short story portraying rather graphically the impression made on a returned missionary by a society craze over Indian religions.
- Morrison, Arthur.** The Hole in the Wall. McClure \$1.50
- 2-21578 Tale of Ratcliff Highway and Wapping in days when they were the terror of the police. Autobiographic form.
- Ollivant, Alfred.** Danny. Doubleday \$1.50
- 2-25926 Dog story, liked enthusiastically by many but too full of heartbreak to be recommended indiscriminately. Considerably enlarged since published as serial.
- Payne, Will.** On Fortune's Road. McClurg \$1.50
- 2-22306 In the Panic; A Day in Wheat; The Plant at High Grove; The Chairman's Politics; The Lame Boy; The Salt Crowd's Trade; The End of the Deal.
- Photographic in fidelity to city life, his work is literary in its suggestiveness and reserve. *Dial*
- Peck, S: M.** Alabama Sketches. McClurg \$1
- 2-7627 Church squabbles, personal idiosyncrasies, local politics, negro humor, Civil War echoes, etc. Excellent to read aloud.
- These tales, though slight, have positive charm. *Dial*
- Roberts, C: G: D.** Barbara Ladd. Page \$1.50
- 2-24321 Love story of Connecticut gentlefolk, patriots and loyalists, at outbreak of Revolution. Shows strong feeling for nature.
- Scott, H. S.** "Henry Seton Merriman" *pseud.* The Vultures. Harper \$1.50
- 2-20814 Love and political intrigue in Warsaw immediately before assassination of Alexander 2.
- Clean, wholesome and sincere. *Spectator*
- Seawell, M. E.** Francezka. Bowen-Merrill \$1.50
- 2-24931 The military exploits of Marshal Saxe are the background of a love story leading to inevitable tragedy.
- Slosson, Mrs A. T.** Aunt Abby's Neighbors. Revell \$1
- 2-20390 Monologues of an old woman, a practical Christian of much kindly wisdom and quiet humor, on sects, charity, friendship etc.
- Smith, F. H.** Fortunes of Oliver Horn. Scribner \$1.50
- 2-20817 Affectionate study of southern society at outbreak of Civil War and of art student's life in New York about 1860.
- Stuart, Mrs R. McE.** Napoleon Jackson. Century \$1
- 2-22482 Comedy of love and idleness in which a colored heroine maintains her right to support a husband in luxury.
- Tarkington, Booth.** The Two Vanrevels. McClure \$1.50
- 2-22845 Love story of Mexican War period told in terms of delicate, old-fashioned sentiment. Artificial in scheme, based on impossible complications, but holds interest.
- Van Dyke, H: J.** The Blue Flower. Scribner \$1.50
- 2-25606 Other stories: The Source; The Mill; Spy Rock; Wood Magic; The Other Wise Man; A Handful of Clay; The Lost Word; The First Christmas Tree.

Webster, H: K. Roger Drake, Captain of Industry.

Macmillan \$1.50

- 2-25600 Hero tells story of mining ventures, rivalry in love and business and formation of great copper combine.

b Wharton, Edith. Valley of Decision 2v.

Scribner \$2

- 2-6076 As a study of Italian society on the verge of the French Revolution, deeply interesting; as a study of temperament, sympathetic and judicial. *Saturday Review*

White, S. E: The Blazed Trail. McClure \$1.50

- 2-7561 A young lumberman's struggle with a powerful and unscrupulous firm. Realistic descriptions of life in Michigan logging camp.

c Willard, J. F. "Josiah Flynt" *pseud.* The Little Brother: a Story of Tramp Life. Century \$1.50

- 2-8863 Founded on actual knowledge of practical sociology and well worth reading by parents and guardians of restless, but not vicious, children. *Critic*

a Wister, Owen. The Virginian. Macmillan \$1.50

- 2-14431 Capital study of the best type of western cowboy, intrepid, level headed, rough living but right hearted and deserving a good woman's love.

Wright, M. T. Aliens. Scribner net \$1.50

- 2-8242 Cotton belt story. Shows how little reconstruction has reconstructed and how worse than useless are many attempts to foist northern ideas on southerners of either color. *Nation*

JUVENILE BOOKS

- 220.52 **Bible for Children.** Century \$3

- 2-2733 Selected and arranged without mutilation of King James text by Mrs Joseph B. Gilder. Handsomely printed quarto, lying open easily; 24 plates from famous paintings. The excellent prefaces are hardly appropriate in a book for children.

- 290 **Price, L. L. & Gilbert, C: B.** Heroes of Myth. (Stories of Heroes) Silver 50c

- 2-23757 Tales of Egyptian, Chinese, Indian, Persian, Japanese, Greek, Scandinavian, German and Russian mythical heroes.

- 293 **Brown, A. F.** In the Days of Giants. Houghton net \$1.15

- 2-12213 Stories from Norse mythology retold for children.

- 398.2 **c Lang, Andrew, ed.** Book of Romance.

Longmans net \$1.60

- 2-23761 Tales of King Arthur, Roland, Robin Hood, Grettir the Strong, etc. told, except one, by Mrs Lang. Illustrations in black and white and color by J. L. Ford.

- 590 **Jordan, D: S. comp.** True Tales of Birds and Beasts. (Heath's Home and School Classics) Heath 40c

- 2-14024 Animal stories "true and also good for children to read," by Thoreau, Irving, Joaquin Miller, and others. Excellent print and illustration.

- 613 **Guerber, H. A.** Yourself. Dodd net \$1.20
- 2-22427 For children under 12. Explains the body's organism and daily needs, the processes and origin of life, necessary sanitary observances, etc. Fairly successful attempt at a difficult task.
- 790 **a Beard, Lina & A. B.** What a Girl Can Make and Do. Scribner net \$1.60
- 2-24933 Work with hammer and saw, Easter and Christmas possibilities, valentines, picture collections, basket weaving, rugs, tableaux, gardens, outdoor observation, basket ball, cheap devices for entertainment, etc. Invaluable illustrated handbook. Companion to *American Girls' Handy Book*.
- 808.8 **c Wiggin, Mrs K. D. (Smith) & Smith, N. A. comp.** Golden Numbers: a Book of Verse for Youth. McClure net \$2.50
- 2-27230 Comprehensive, classified selection from standard poets, with really attractive introduction for young readers. Author and title indexes. Physical makeup admirable.
- 811.49 **b Brown, A. F.** A Pocketful of Posies. Houghton net \$1
- 2-25408 Poetic, humorous and fantastic ideas presented in verses which children will like. Marginal glosses in red engage attention. Well illustrated.
- 818.4 **Outlook Story Book for Little People.** Outlook Co. net \$1.20
- 2-27732 Collection of short stories and verses by many writers, reprinted from *Outlook*. Clear type and delightful pictures.
- 910 **Wide World, The.** (Youth's Companion Ser.) Ginn 30c
- 2-5849 Illustrated sketches, by various contributors, of life in many lands. Reprinted from *Youth's Companion*. This volume about children. Others of series on northern Europe, southern countries, etc.
- 970.2 **b Eastman, C: A.** Indian Boyhood. McClure net \$1.60
- 2-22660 Describes his own boyish training, playmates, games, hunting, forest adventures, the bear dance, feasts, story-telling etc. Ginn 50c
- 970.6 **Zitkala-sa.** Old Indian Legends. Ginn 50c
- 1-25845 Short fairy tales taken from the lips of Dakota Indians and simply and naturally told.
- 973 **Tappan, E. M.** Our Country's Story. Houghton 65c
- 2-14118 Elementary history. Style has unusual life and appeal to child's interest. Full and interesting illustration.

JUVENILE FICTION

- c Barbour, R. H:** Behind the Line. Appleton net \$1.20
- 2-22305 Football and life in a small New England college.
- b Bennett, John.** Barnaby Lee. Century \$1.50
- 2-22477 Boy's adventures with pirates and in New Amsterdam at period of English capture, 1664. Local color carefully studied. Among characters are Peter Stuyvesant and Governor Calvert of Maryland.

- b Chase, J. A.** *Mayken: a Child's Story of the Netherlands in the 16th Century*, McClurg net \$1.20
- 2-23838 *Adventures at court and during siege of Leyden, of little daughter of William of Orange. Main characters historical.*
- Connolly, J. B.** *Jeb Hutton; the Story of a Georgia Boy*, Scribner net \$1.20
- 2-22177 *Adventures on a government dredge on the Savannah river, and development of a fine friendship between two young men.*
- Crothers, S: McC.** *Miss Muffet's Christmas Party*, Houghton net \$1
- 2-26753 *Her guests are book friends: Alice, the Cheshire cat, Little Bo-Peep Aladdin, Rollo etc. Children may sometimes miss the point of bright characterizations, but will enjoy the party.*
- Dix, B. M.** *A Little Captive Lad*, Macmillan \$1.50
- 2-23906 *Cavaller's child, adopted by his Roundhead half brother. Very well studied and written. Perhaps oversomber for children, though ending happily.*
- c Earle, M. T.** *The Flag on the Hill-top*, Houghton net 90c
- 2-22172 *Well told story of a boy's endeavor to be loyal both to his southern sympathies and his unionist guardian during War of Rebellion.*
- French, Allen.** *Sir Marrok: a Tale of the Days of King Arthur*, (St Nicholas Books) Century net \$1
- 2-22659 *Warfare of good against evil in tale of knightly valor and sorcery overcome.*
- Gates, Eleanor.** *Biography of a Prairie Girl*, Century \$1.50
- 2-23907 *Graphic picture of child life on a Dakota farm. Its adventures should attract children but its artificial form by which names and conversations are almost excluded may repel.*
- a Gordon, C: W:** *"Ralph Connor" pseud. Glengarry School Days*, Revell \$1.25
- 2-28287 *Connected stories of school interests, pranks, outdoor expeditions, etc. on the Canadian frontier.*
- Greene, Homer.** *Pickett's Gap*, Macmillan net \$1.25
- 2-25048 *Story of two railways fighting for control of a mountain pass owned by the boy hero's grandfather.*
- c Hopkins, W: J.** *The Sandman: His Farm Stories*, Page net \$1.20
- 2-20816 *For young children. Notable for simplicity and skilful recognition of child's love of details.*
- Howells, W: D.** *Flight of Pony Baker*, Harper net \$1.25
- 2-23296 *Delightful to adults in its humorous photography of boy's mind. Much more interesting to boys than A Boy's Town.*

c **Kipling, Rudyard.** Just So Stories.

Doubleday net \$1.20

- 2-23595 Surprising tales of the origins of things familiar told with repetitions dear to childhood. Illustrated by author.

a **London, Jack.** Cruise of the Dazzler. (St Nicholas Books) Century net \$1

- 2-22486 School trials, street fighting, San Francisco harbor pirates and shipwreck furnish excitement in a wholesome and well written boy's story.

Ray, A. C. Nathalie's Chum. Little net \$1.20

- 2-22661 Has characteristics of her earlier stories—high ideals and brighter conversation but not greater probability than average girls book.

Smith, N. A. Three Little Marys. Houghton net 85c

- 2-23087 Scotch Mairi, English Molly and Irish Maureen Bawn are the heroines of three pretty stories.

c **True, J: P.** On Guard! Against Tory and Tarleton. (The Stuart Schuyler Stories) Little net \$1.20

- 2-22662 Major Stuart Schuyler's adventures during Greene's retreat through the Carolinas. Follows *Morgan's Men*. Good characterization.

COMPARATIVE TABLE OF BOOKS PUBLISHED IN 1902

These statistics are based on lists prepared according to varying classifications and methods. The figures should therefore be regarded as only approximate. See paper on Relative Book Production by Dr E. C. Richardson in *Publisher's Weekly*, 57:805, and abstract in *Public Libraries*, 5:192.

1902	United States	Great Britain	France	Italy
Religion and philosophy.....	742	648	.....	412
Sociology.....	271	593	.....	543
Law.....	640	134	.....	393
Education.....	629	a572	.....	a1 095
Science, useful arts, fine arts.....	895	464	.....	1 063
Medicine and hygiene.....	299	237	.....	634
Literature.....	547	271	.....	215
Poetry and drama.....	399	348	.....	445
Fiction and juvenile.....	2 311	2 470		281
History, biography, travel.....	989	737		706
Miscellaneous.....	61	907		333
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a Includes philology.



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INCLUDING UNIVERSITIES, PROFESSIONAL AND TECHNICAL SCHOOLS

Bulletin 21

PROFESSIONAL EXAMINATION PAPERS

FOR THE

Academic year 1903

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ALBANY

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1903

Price 25 cents

University of the State of New York

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PREFACE

Professional examinations. The Regents of the University of the State of New York are charged by law with the supervision of secondary and higher education. It is their duty to guard the entrance to the learned professions by establishing standards and conducting examinations. As a result of their systematic supervision, the credentials issued by the University of the State of New York receive general recognition. The New York State medical student certificate, for example, which is awarded either as a result of Regents examinations or on equivalent work in an accredited school, is now accepted at its face value for admission to medical schools throughout the United States. Licenses to practise medicine, dentistry, veterinary medicine and certificates as expert public accountants issued by the Regents of the University are recognized as representing the highest standards. New York beyond all other political divisions has controlled through the Regents the power of conferring degrees and has established the most advanced standards for admission to professional practice.

The question papers in this volume are those used for the academic year 1903 in medicine, dentistry, veterinary medicine, accountancy, business, in the New York State Library School and in extension work.

JAMES RUSSELL PARSONS JR

Director College Department

College Department

58th Medical Examination

ANATOMY

No.

Board

Place

Tuesday, September 23, 1902—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe human blood.
- 2 Give the varieties of epithelium and state where in the body each variety is found.
- 3 Give the minute anatomy of the skin.
- 4 Give the gross anatomy of the spine.
- 5 Describe the temporomaxillary articulation.
- 6 Give the origin, insertion, action, nerve supply and blood supply of *one* of the following muscles: masseter, trapezius, rectus oculi superior, sartorius.
- 7 Give the origin and the surgical anatomy of the middle meningeal artery.
- 8 Describe the pulmonary veins.
- 9 What constitutes the floor of the fourth ventricle?
- 10 Mention the branches of the pneumogastric nerve and give the distribution of *one* of these branches.
- 11 Give the gross anatomy of the tongue.
- 12 Explain the differences between mucous membrane and serous membrane. Illustrate.
- 13 Give the origin, course and termination of the thoracic duct.
- 14 Give the boundaries and contents of the axilla.
- 15 Describe the ileocecal valve and give its location.

College Department
59th Medical Examination
ANATOMY

No.
Board
Place

Tuesday, January 27, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe the acetabulum and mention the bones that enter into its formation.
- 2 Describe the muscles of the abdomen.
- 3 What are agminated or Peyer's glands and where are they found?
- 4 Describe the inguinal canal.
- 5 With what passage do the nasal cavities connect? What tubes and glands are located at this junction?
- 6 Describe the lacteals.
- 7 Give the relations of the iris, cornea and ciliary body.
- 8 Describe the course of the blood through the liver.
- 9 Give the articulations of the ulna.
- 10 Give the blood and nerve supply of the large intestine.
- 11 Describe the mammae.
- 12 Give the anatomy of the esophagus.
- 13 Describe the penis.
- 14 Mention and describe the coverings of the brain.
- 15 Give the gross anatomy of the lungs.

College Department
60th Medical Examination
ANATOMY

No.
Board
Place

Tuesday, May 19, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 What is areolar tissue and where is it found?
- 2 Give the minute anatomy of muscular tissue.
- 3 Make a classification of the bones of the body, giving an example of each class.
- 4 Mention *five* muscles of the forearm. Give the origin and insertion of *one* of the muscles mentioned.
- 5 Mention the branches given off from the arch of the aorta.
- 6 Give the origin, course, branches and distribution of the great sciatic nerve.
- 7 Mention the veins found in the neck and describe *one* of them.
- 8 Give the gross anatomy of the ear.
- 9 Describe the bladder and give its nerve supply.
- 10 Give the relations of the pancreas. What is the course of the pancreatic duct?
- 11 In destruction of the posterior thoracic nerve, what muscular functions would be lost?
- 12 What are the Pacchionian depressions? State where these depressions are found.
- 13 Describe the pericardium.
- 14 Give the anatomy of the trachea and of the bronchi.
- 15 Describe the ovaries and give their relations.

College Department
61st Medical Examination

No.
Board
Place

ANATOMY

Tuesday, June 23, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Mention the bones that form the arch of the foot.
- 2 Mention and describe the sutures of the cranium.
- 3 Mention the branches of the arch of the aorta and give the course of any *one* of these branches.
- 4 Describe the antrum of Highmore.
- 5 Describe the temporomaxillary articulation, mentioning the ligaments.
- 6 Mention the muscles attached to the eyeball.
- 7 Describe the circulation of the blood.
- 8 What constitutes the cervical plexus of nerves?
- 9 Describe the Fallopian tubes.
- 10 Describe the auditory apparatus.
- 11 Give the course and topography of the female ureters.
- 12 Differentiate the frontal sinuses and the lateral sinuses.
- 13 State the relations of the peritoneum to the bladder.
- 14 Describe the appearance of the larynx as revealed by the laryngoscopic mirror.
- 15 Give the divisions of (a) the small intestine, (b) the large intestine.

PHYSIOLOGY AND HYGIENE

Tuesday, September 23, 1902 — 1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 State the function of the aqueous humor of the eye.
- 2 Give the cause of coagulation of blood. How long after death does blood coagulate in the body?
- 3 Mention the chief uses of adipose tissue.
- 4 How is the average temperature of the body maintained? Give the normal temperature of the body as shown by (a) the mouth, (b) the rectum.
- 5 Mention *four* alimentary principles essential to health.
- 6 What digestive changes take place in the small intestine?
- 7 State the functions of the sympathetic nerves.
- 8 Mention *three* examples of amyloid food. Describe in detail the changes that amyloid food undergoes in the process of digestion.
- 9 Define and illustrate (a) simple tubular glands, (b) compound tubular glands, (c) racemose glands.
- 10 What organs constitute the vocal apparatus? Explain in detail how they operate to produce and modulate the voice.
- 11 What arguments can be advanced in favor of wool as material for winter clothing?
- 12 In what part of an occupied room is the most impure air found? Explain.
- 13 How may public health administration be potent in preventing the spread of (a) smallpox, (b) diphtheria, (c) scarlet fever?
- 14 Mention in order of importance the different physical and the different chemical agents that are used for disinfection.
- 15 What are the possible results of the use of tobacco by growing boys in regard to (a) circulation, (b) vision, (c) air-passages?

PHYSIOLOGY AND HYGIENE

Tuesday, January 27, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe by diagram or otherwise the human red blood-corpuscle and give its chemical composition and biologic changes.
- 2 What are the enzymes of the pancreatic juice and what office does each one perform in the process of digestion?
- 3 Give the physiologic changes that occur at puberty in (a) the male, (b) the female.
- 4 Describe the functions of the liver.
- 5 What is the endocardium? How is the endocardium nourished?
- 6 Give the functions of the trigeminal nerve.
- 7 Describe the function of the kidneys. Do both kidneys act constantly? Explain.
- 8 What does *each* of the following contribute to vital activity: (a) proteids, (b) fats, (c) carbohydrates?
- 9 Give the particular function of each heart valve.
- 10 What constitutes the respiratory apparatus? Describe in detail both the inspiratory and the expiratory movements of respiration and the movements of the glottis in connection with each.
- 11 What evidences of contamination of drinking water may be obtained by chemical analysis?
- 12 How should disinfectants be applied to (a) the hands of the operator in preparation for surgical work, (b) bed linen and clothing, (c) feces and urine?
- 13 Describe the procedure of (a) establishing a quarantine in contagious diseases, (b) lifting a quarantine in contagious diseases.
- 14 Describe the best method of constructing a house drain.
- 15 Mention and describe the diseases of animals that are communicable to man and state the means that should be employed for the prevention of these diseases in man.

PHYSIOLOGY AND HYGIENE

Tuesday, May 19, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Where in the body may the following epithelial cells be found: squamous, ciliated, polyedral, columnar, transitional?
- 2 Describe the development and functions of teeth.
- 3 Describe the systemic blood circulation. State in detail the changes that take place in the character of the systemic blood.
- 4 Mention the forces at work in the absorption of digested food.
- 5 State the functions of the medulla oblongata.
- 6 Describe the normal heart sounds and state where they are best heard.
- 7 Give the perversion of function that may cause (a) vomiting, (b) hiccup.
- 8 Describe the function of the kidney.
- 9 What would be the effect of an exclusive diet of (a) nitrogenous food, (b) fats and carbohydrates? Explain.
- 10 In what parts of the body is the sense of touch most delicate? Describe the nervous mechanism on which the sense of touch depends.
- 11 Give the rationale of the use of the various antitoxins.
- 12 Mention some pathogenic bacilli found in drinking water and state what means should be employed to destroy their infectiousness. How may such impure water contaminate a milk supply?
- 13 Mention some of the diseases incidental to school life.
- 14 Mention *five* occupations prejudicial to health. Explain.
- 15 Give the nervous and muscular mechanism of respiration. Where is the respiratory center located?

PHYSIOLOGY AND HYGIENE

Tuesday, June 23, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

1 Mention the waste products of metabolism and state how they escape from the body.

2 Give the complete physiology of (a) stomach digestion, (b) small intestine digestion.

3 Describe the colorless corpuscles of the blood as to (a) development, (b) size, (c) form, (d) number, (e) function.

4 What organs and forces are concerned in blood circulation? Trace the complete course of the circulation, beginning at the right ventricle.

5 Describe spermatozoa (a) microscopically, (b) physiologically.

6 Mention the varieties of epithelium. State the function of epithelium.

7 Give the origin, distribution and function of the olfactory nerves.

8 Mention the conditions that control body temperature.

9 How is uric acid developed in the human system? What class of foods increases the development of uric acid?

10 What is (a) reserve air, (b) residual air? What is meant by the vital capacity of the lungs?

11 Describe (a) hard water, (b) soft water. How may hard water be converted into soft water for drinking purposes?

12 State the impurities that may exist in (a) natural ice, (b) artificial ice.

13 What are the physical and the chemical properties of sweat? What is the influence of the nerves on the excretion of sweat?

14 What conditions of soil and climate are most favorable for the residence and treatment of tuberculous patients? Mention *three* localities in the United States where these conditions may be found.

15 Mention the diseases that may be transmitted by the ingestion of contaminated meat and fish. What means should be adopted to prevent such diseases?

Wednesday, September 24, 1902—9.15 a.m. to 12.15 p.m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

1 How are the compounds containing two, three or four elements distinguished by name? Define hydroxid, hydrate.

2 Describe litmus, mentioning its source, the form commonly used in the laboratory and its reactions.

3 Define anhydrous, deliquescent, efflorescent, electrolysis, decantation.

4 Give the reaction of tannin with (a) preparations of iron, (b) gelatin.

5 Define specific gravity. What relation does the amount of solid matter in urine bear to the specific gravity of urine?

6 How does hydrogen exist in nature? Give the symbol, valence and atomic weight of hydrogen.

7 Give the source and characteristics of citric acid.

8 Give the formula, synonyms and properties of (a) mercurous iodid, (b) mercuric iodid.

9 Give the formula, preparation and properties of nitrate of silver. Mention a test for nitrate of silver.

10 Give the treatment of poisoning by strychnin.

11 Mention the properties of (a) hydriodic acid, (b) hydrobromic acid.

12 How may the presence of mercury be detected in a solution?

13 Give the chemical difference between the blood in the pulmonary artery and the blood in the pulmonary vein.

14 Where is glycogen found? Give the properties of glycogen.

15 How do phenols differ from alcohols? State the properties and uses of phenol.

College Department

59th Medical Examination

CHEMISTRY

Wednesday, January 28, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

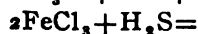
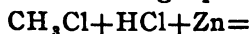
- 1 Define and illustrate specific gravity, saturated solution, emulsion.
- 2 Write the formula of (a) ammonium chlorid, (b) acetic acid, (c) iodoform, (d) argentum nitrate, (e) cane-sugar.
- 3 What is (a) an acid, (b) an alkaloid? Illustrate.
- 4 Describe the halogen elements.
- 5 How is hydrochloric acid generally prepared? Give the properties of hydrochloric acid.
- 6 Define combustion. State the result of combustion.
- 7 A person voids daily 50 ounces of normal urine; give the approximate quantity of *each* of the following ingredients voided: (a) urea, (b) uric acid, (c) total solids, (d) water.
- 8 How may the presence in urine of *each* of the following be detected: (a) albumin, (b) sugar?
- 9 What is reduced iron (ferrum redactum)? State how reduced iron is obtained and mention its uses.
- 10 Give the gross chemistry of the sugars.
- 11 Give the chemical reaction in the mixing of a Sedlitz powder.
- 12 Describe collodion and state its uses.
- 13 Give a test for the detection of alum in baking powder.
- 14 State how to determine whether a given white powder is calomel or corrosive sublimate.
- 15 Give the chemical changes occurring when potassium is placed on water.

CHEMISTRY

Wednesday, May 20, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Define photography. Give the chemistry of photography.
- 2 Give the formula and name of the product that results when phosphorus is burned in dry air.
- 3 Write the graphic formula of (a) sulfuric acid, (b) water, (c) nitric acid, (d) marsh-gas, (e) calcium hydrate.
- 4 Describe the relations of oxygen to combustion and to life.
- 5 Give the Fahrenheit and the centigrade degree of (a) the freezing-point of water, (b) the boiling-point of water.
- 6 What mineral acids are incompatible with mercurous chlorid? Give the formula and synonyms of mercurous chlorid.
- 7 Describe the appearance of urine containing bile and give tests for the detection of bile in urine.
- 8 Give the treatment of corrosive sublimate poisoning. Mention an antidote to arsenic poisoning and state how this antidote is prepared.
- 9 Define fermentation, decomposition, putrefaction. What conditions are necessary to putrefaction?
- 10 Mention and describe *three* allotropic forms of carbon.
- 11 Give the general definition of an ether. How is sulfuric ether obtained?
- 12 Give the composition of (a) cane-sugar, (b) grape-sugar, (c) starch.
- 13 During respiration what chemical changes take place in (a) the air, (b) the blood?
- 14 Give a test for the detection of hydrocyanic acid in solution.
- 15 Complete the following equations:



College Department

61st Medical Examination

CHEMISTRY

No.

Board

Place

Wednesday, June 24, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

1 Give the symbol, valence and a principal compound of each of 10 elements.

2 Define and illustrate (a) mixture, (b) compound, (c) radical, (d) salt, (e) endosmosis.

3 State the normal reaction of (a) urine, (b) saliva, (c) blood, (d) synovial fluid, (e) tears.

4 Describe a method of preparing (a) hydrochloric acid, (b) nitric acid, (c) iodoform.

5 Describe the microscopic appearance of (a) uric acid, (b) triple phosphates.

6 Give a typical example and state the principal ingredients of each of the following mineral waters: saline cathartic, alkaline, sulfurous.

7 Give the chemical properties of fluorine. Mention the uses of hydrofluoric acid.

8 Mention the chemical reason for the use of lithia and its salts in cases of uric acid diathesis.

9 Give the formula, preparation and uses of carbolic acid.

10 Give the characteristics of (a) diabetic urine, (b) nephritic urine, (c) cystitic urine.

11 Give equations showing a mode of preparing (a) H, (b) O, (c) AgCl.

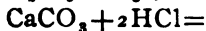
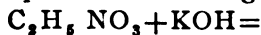
12 Express the following in apothecaries' weight and measure:

Ammonii carb.	5 grams
Syr. aurantii	60 c. c.
Aquae destil. ad	120 c. c.

13 What is coal oil? Mention the principal derivatives of coal oil used in medicine.

14 Define fermentation, putrefaction, combustion, decay.

15 Complete the following equations:



College Department

No.

58th Medical Examination

Board

Place

SURGERY

Wednesday, September 24, 1902—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

1 Differentiate chancre, chancroid and venereal warts of the vulva.

2 Give the prognosis and treatment of epithelioma of the tongue.

3 Mention *three* methods of operative interference in facial neuralgia. Describe *one* of the methods mentioned.

4 Describe the treatment and state the most common seat of fracture of the lower jaw.

5 Give a classification of the dislocations of the elbow and describe the mechanism for reduction of *one* form.

6 Define talipes and describe its different forms. Give the morbid anatomy of *one* of these forms.

7 Give the complications and treatment of varicose veins of the lower extremity.

8 Give the indications for laparotomy in gunshot wounds of the abdomen.

9 Give the clinical history of acute appendicitis.

10 Give operative methods of treating retroversion of the uterus.

11 Describe the operative procedure in mastoid disease.

12 Give the etiology, symptoms, prognosis and treatment of retropharyngeal abscess.

13 Give the causes and treatment of chronic ulcer of the leg.

14 Give the general points of difference between malignant tumors and non-malignant tumors.

15 Give the indications for intracellular injection of normal salt solution.

College Department

59th Medical Examination

SURGERY

No.

Board

Place

Wednesday, January 28, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Give a classification of suture and ligature material. State the indications for the use of each.
- 2 Describe *two* varieties of carcinoma and give the clinical features of *one* variety.
- 3 Give the indications for ligature of the femoral artery in Scarpa's triangle. Describe the operation.
- 4 Give the diagnosis and prognosis of fracture of the base of the skull.
- 5 Describe the dislocations of the ankle-joint.
- 6 Describe hammer-toe and give its treatment.
- 7 Describe *three* varieties of spinal curvature and give their causes.
- 8 Mention the indications for intravenous saline infusion. Give the technic of the procedure.
- 9 Describe the varieties of urethritis and give their sequels.
- 10 What are the clinical varieties of hernia?
- 11 Describe the preparation of a rectal case for operation.
- 12 Give the indications for curettage of the uterus. Describe the operation.
- 13 Mention the common causes of deafness.
- 14 Describe the symptoms and treatment of compound fracture involving the frontal sinuses.
- 15 Differentiate furuncle, carbuncle and anatomical tubercle.

College Department

No.

60th Medical Examination

Board

SURGERY

Place

Wednesday, May 20, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Give the indications for reopening wounds.
- 2 Define cyst. Give a classification of cysts and mention the characteristic clinical features of a hygroma.
- 3 Give the indications for tracheotomy. Describe the operation.
- 4 Mention *three* varieties of fracture. Describe *one* of the varieties mentioned.
- 5 Give the early symptoms of tuberculosis of the hip-joint.
- 6 Define arthritis deformans. Give the pathologic changes and symptoms in a case of arthritis deformans.
- 7 Mention *five* of the most common accidents following attempts to reduce a dislocation.
- 8 Give the etiology and treatment of epistaxis.
- 9 Mention the common syphilitic lesions of the nervous system.
- 10 Mention the various forms of conjunctivitis. Give the treatment of *one* form of conjunctivitis.
- 11 Give the details of a method of making the hands surgically clean.
- 12 Mention the causes of death from cutting of the throat with intent to kill.
- 13 Give the treatment of gunshot wound of the femoral artery at the apex of Scarpa's triangle.
- 14 Give the symptoms and treatment of lymphangitis.
- 15 Define cheloid (cheloma). Give the etiology of cheloid.

College Department
61st Medical Examination]

No.

Board

Place

SURGERY

Wednesday, June 24, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe in detail ether anesthesia.
- 2 Give the diagnosis of lipoma of the neck.
- 3 Give the indications for excision of the rectum and describe the operation.
- 4 Mention the complications of fracture of the vertex of the skull.
- 5 Describe the symptoms and treatment of dislocation of the head of the radius.
- 6 Give the symptoms and diagnosis of tubercular osteomyelitis of the sacrum.
- 7 Define rachitis. State the symptoms and the most important pathologic lesions of rachitis.
- 8 Describe extraperitoneal ligation of the external iliac artery and give its indications.
- 9 Give the symptoms and treatment of senile hypertrophy of the prostate.
- 10 Give the symptoms and treatment of perforation of gastric ulcer.
- 11 Give the diagnosis of syphilis of the pharynx.
- 12 Describe cystocele and rectocele. Give the treatment of either of the conditions mentioned.
- 13 Give the differential diagnosis of glaucoma and cataract.
- 14 Give the etiology and treatment of bleeding from the nose.
- 15 Give the etiology, symptoms and treatment of elephantiasis.

Thursday, September 25, 1902 — 9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

1 Give an anatomic description of the vagina. State the functions of the vagina.

2 Describe the formation and development of the placenta.

3 Describe the mammary glands and state the changes that occur in them during pregnancy.

4 Mention the phenomena attendant on rupture of a Graafian follicle.

5 Give the principal measurements of the fetal head at term.

6 How may a short funis complicate labor? State how such a condition should be managed.

7 Define vaginismus, vaginitis. Give the treatment of each condition.

8 Give the causes of delayed labor in the second stage and state how they should be overcome.

9 Mention the indications for the use of ergot in labor. How should ergot be employed?

10 Give the causes, symptoms and management of placenta praevia.

11 Give some general directions for the care of the patient at the close of labor.

12 Define puerperal eclampsia. Give the causes and treatment of puerperal eclampsia.

13 Define ectopic gestation. Mention the varieties and give the management of ectopic gestation.

14 Give the causes and treatment of puerperal phlebitis.

15 Mention some of the anomalies of the maternal soft structures that may serve to obstruct labor, and state what should be done in each condition mentioned.

College Department
59th Medical ExaminationNo.
Board
Place

OBSTETRICS

Thursday, January 29, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

1 Give in consecutive detail the physiologic phenomena pertaining to reproduction of the species.

2 Give (a) the probable symptoms of pregnancy before quickening, (b) the positive symptoms of pregnancy after four and one half months.

3 Mention the symptoms of approaching labor and state the preparations that should be made when they occur.

4 Describe the management of *three* important abnormal presentations.

5 Mention the principal causes of sterility in woman, and state what may be done to promote fertility.

6 Define puerperal eclampsia. State the probable causes, the symptoms and the management of puerperal eclampsia.

7 What is cystitis? State the causes of cystitis in the female and give its treatment.

8 State the principal causes of puerperal infection. What means should be taken to prevent puerperal infection?

9 Give the symptoms, diagnosis and treatment of inversion of the uterus.

10 Enumerate some of the most frequent causes of dystocia, and differentiate uterine inertia and obstructed labor.

11 Mention the important diameters of the fetal head at term and give their measurements. State similar diameters, with measurements, of the bony pelvis.

12 Describe in detail the liquor amnii and give its functions.

13 Describe a condition requiring the use of an anesthetic during labor. State the kind of anesthetic preferred and give the method of administering it.

14 Mention the forms of asphyxia neonatorum and give methods of resuscitation.

15 How may the date of labor be estimated? What medico-legal complications may result from an erroneous diagnosis of regnancy?

OBSTETRICS

Thursday, May 21, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Give an anatomic description of the uterus, including the arrangement of its muscular fibers.
- 2 Describe physiologically the impregnation of the ovum.
- 3 Mention the average duration of pregnancy and state the methods by which the date of labor may be prognosticated.
- 4 Give the causes, symptoms and treatment of asphyxia neonatorum.
- 5 Give the treatment of the pernicious vomiting of pregnancy.
- 6 Under what conditions is version indicated? What methods are used in the operation?
- 7 Describe the knee-chest posture and mention some of the reasons for its employment.
- 8 How should a woman in the puerperal state be catheterized?
- 9 Describe in detail the delivery of the placenta according to the method of Credé.
- 10 Describe and differentiate hydrosalpinx, pyosalpinx, hematosalpinx.
- 11 Give the approximate length of the fetus at the sixth, the seventh, the eighth and the ninth calendar month of gestation.
- 12 Give the management of a case of rigidity of the os uteri during labor.
- 13 State when obstetric anesthesia is admissible. How should the anesthetic be administered?
- 14 How may laceration of the cervix be recognized and how should it be treated?
- 15 Mention the dangers of puerperal sepsis and give its prophylactic treatment.

College Department

61st Medical Examination

OBSTETRICS

No.

Board

Place

Thursday, June 25, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Give the anatomy of the female reproductive organs.
- 2 Mention the several processes relating to fecundation, including the changes in the ovum following fertilization.
- 3 Describe the fetal circulation.
- 4 Describe the changes that occur in the genital organs after pregnancy.
- 5 Define multiple pregnancy. State the causes and signs of multiple pregnancy and show how it may complicate labor.
- 6 Describe the mechanical and the surgical treatment of retrodisplacement of the uterus.
- 7 Give the symptoms, varieties and dangers of placenta praevia. State the methods of dealing with placenta praevia.
- 8 Give the causes, pathology, symptoms, diagnosis and treatment of vaginitis.
- 9 Give the causes, pathology, symptoms, diagnosis and treatment of chronic simple endometritis.
- 10 Define vaginismus and give its causes, pathology and treatment.
- 11 Describe the classic Cesarean section, give its modifications and state the indications for the application of each.
- 12 How may it be ascertained that a fibroid tumor complicates labor? Give the management of this condition.
- 13 Under what conditions is version to be performed? Give the technic of version.
- 14 Define pelvimetry and state its purpose. Describe the technic of pelvimetry.
- 15 Give the symptoms, diagnosis and treatment of rupture of the uterus complicating labor.

PATHOLOGY AND DIAGNOSIS

Thursday, September 25, 1902—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 What pathologic changes occur in typhoid fever?
- 2 What changes occur in rheumatic arthritis?
- 3 Give the pathologic changes in varicose ulcer.
- 4 What physical conditions are conducive to the development and growth of bacteria? How are bacteria reproduced?
- 5 What pathologic changes occur in the air-cells during pulmonary hepatization?
- 6 Describe (a) fibrinous inflammation, (b) diphtheritic deposit.
- 7 Define adenoma. In what tissues do adenomata occur?
- 8 Describe the tuberculous lesions of bone.
- 9 Differentially diagnose gastric ulcer and cancer of the stomach.
- 10 Give the pathology and diagnosis of hydrocele.
- 11 Give the significance of jaundice as a diagnostic symptom.
- 12 Differentially diagnose variola, varicella, scarlatina.
- 13 Give the symptoms of uremia.
- 14 Compare the symptoms of opium poisoning with the symptoms of cerebral hemorrhage.
- 15 Give a medicolegal definition of surgical shock.

PATHOLOGY AND DIAGNOSIS

Thursday, January 29, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Give the technic of a blood examination. Mention the blood changes that occur in chlorosis.
- 2 Make a bacteriologic differentiation of tuberculosis of the bowels and typhoid fever.
- 3 What structural changes may result from hypertrophy of the prostate gland?
- 4 Describe gonococci. State the pathologic changes due to gonococci.
- 5 Define vertigo and give its causes.
- 6 Define and illustrate infiltration, degeneration.
- 7 What is a thrombus? How may a thrombus terminate?
- 8 Describe the process of wound repair.
- 9 How do toxic conditions disturb cerebral function?
- 10 Give the names of *three* animal parasites and mention a disease caused by each.
- 11 Under what conditions may albumin appear in the urine?
- 12 Give the diagnostic value in appendicitis of (a) blood examination, (b) temperature, (c) pulse.
- 13 Give the symptoms of intraperitoneal hemorrhage.
- 14 Make a differential diagnosis of variola, varicella, röteln and scarlet fever.
- 15 What characteristics of the pulse are of clinical value? Illustrate.

PATHOLOGY AND DIAGNOSIS

Thursday, May 21, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

1 Define infection. Mention *three* infectious diseases and give the lesions occurring in *one* of the diseases mentioned.

2 Give some of the pathologic changes occurring in the later stages of syphilis.

3 Mention some of the abnormal products found in the urine. Give the significance of *two* of the products mentioned.

4 What lesions may develop in the course of an attack of acute appendicitis?

5 What complications are liable to occur in chronic otorrhea?

6 Describe the tissue changes in herpes zoster.

7 From what conditions may pyuria arise?

8 Give the procedure of examining sputum for tubercle-bacilli.

9 Make a diagnosis of dislocated movable kidney (floating kidney).

10 What conditions other than those involving the bladder may cause abnormally frequent urination?

11 Enumerate the nervous symptoms due to eye strain.

12 What symptoms would lead to a diagnosis of intestinal indigestion?

13 Make a diagnosis of general anemia.

14 What diagnostic sounds does auscultation reveal in (a) aneurism of the arch of the aorta, (b) pleuritis (first stage), (c) pneumonitis (first stage), (d) acute bronchitis?

15 Give a characteristic temperature chart of a case of typhoid fever, noting probable points of prognostic value in the progress toward recovery.

College Department

61st Medical Examination

No.

Board

Place

PATHOLOGY AND DIAGNOSIS

Thursday, June 25, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe the structural changes that take place in laryngeal tuberculosis.
- 2 Give the etiology of mitral stenosis. Mention the structural changes that occur in mitral stenosis.
- 3 Give the morbid anatomy of chronic gastritis.
- 4 Describe the bone lesions of syphilis.
- 5 What structural changes take place in the mammary gland in chronic mastitis?
- 6 Give the causes of cerebral abscess. State in what part of the brain abscesses are most frequent.
- 7 Mention the forms of kidney degeneration. Describe *one* form of kidney degeneration.
- 8 What parasites may occur in normal feces?
- 9 Describe the bronchial mucous membrane in acute bronchitis.
- 10 Define diathesis, cachexia. Illustrate.
- 11 Give the location of the pain produced by gall-stones. Make a diagnosis (by exclusion) of gall-stones.
- 12 Give the causes and varieties of râles occurring in the chest.
- 13 Give the lesions and symptoms of eczema.
- 14 In what diseases is a blood count useful in diagnosis? What is the significance of a white blood-cell count above 12,000?
- 15 Describe tendon-reflexes and indicate their clinical significance.

College Department

Board

58th Medical Examination

Place

Therapeutics, Practice and Materia Medica

Friday, September 26, 1902—9.15 a. m. to 12.15 p. m., only

" . . . in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its state board of medical examiners."

Laws of 1893, ch. 661, § 146

Questions prepared by the board of examiners representing the **Medical Society of the State of New York.**

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

1 Criticize the following prescription:

℞

Date

Tr. kino $f\overline{3}\frac{1}{4}$ Tr. ferri chloridi $f\overline{3}ss$ Aquae q. s. ad $f\overline{3}\frac{1}{4}$

M.

Sig. $f\overline{3}\frac{1}{4}$ through glass tube after each meal.

Signature

- 2 Define stomatitis and mention its varieties.
- 3 State the dose of (a) purified aloes, (b) extract of aloes, (c) tincture of aloes.
- 4 Mention the therapeutic uses of antipyrin.
- 5 In what principal forms does influenza manifest itself?
- 6 State the composition and the dose of syrup of 'spuill.
- 7 Mention the therapeutic uses of oil of sandalwood.
- 8 Define subjective symptoms of disease, objective symptoms of disease.
- 9 State the source and the therapeutic uses of saccharin.
- 10 Mention the therapeutic uses of santonin. What dangers attend the use of santonin?
- 11 Outline the symptoms and treatment of tubercular peritonitis.
- 12 Describe nux vomica and mention its alkaloids.
- 13 Discuss the action of astringents on alimentary tissues.
- 14 State the causes and symptoms of edema of the glottis.
- 15 Mention the chief alkaloid or alkaloids of (a) belladonna, (b) calabar bean.

College Department

Board

59th Medical Examination

Place

Therapeutics, Practice and Materia Medica

Friday, January 30, 1903—9.15 a. m. to 12.15 p. m., only

" . . . in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its state board of medical examiners."

Laws of 1893, ch. 661, § 146

Questions prepared by the board of examiners representing the Medical Society of the State of New York.

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe the therapeutics of heat.
- 2 Give the etiology and outline the treatment of endocarditis.
- 3 Define diaphoretic. Explain the mode of action of each of the different classes of diaphoretics.
- 4 Mention the incompatibles and the antagonists of digitalis.
- 5 Describe the treatment for the cure of the opium-habit.
- 6 State the indications for the use of amyl nitrite and describe the methods of its administration.
- 7 Mention the therapeutic uses of the preparations of hydrastis.
- 8 Define ophthalmia and give its etiology.
- 9 Explain the incompatibility of strychnin sulfate and potassium iodid in solution
- 10 Give the symptomatology of scarlet fever.
- 11 State the causes, complications and sequels of chorea.
- 12 Define galactagogue. Mention *three* antigalactics and state the manner in which each should be used.
- 13 Mention the diseases in which serum therapy has proved successful.
- 14 Give the etiology and symptoms of exophthalmic goiter.
- 15 Mention the official chlorids and iodids of mercury, and state the doses of the chlorids.

College Department

Board

60th Medical Examination

Place

Therapeutics, Practice and Materia Medica

Friday, May 22, 1903—9.15 a. m. to 12.15 p. m., only

" . . . in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its state board of medical examiners."

Laws of 1893, ch. 661, § 146

Questions prepared by the board of examiners representing the Medical Society of the State of New York.

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 What are the therapeutic uses of cocain other than its use for local anesthesia?
- 2 Describe the treatment of simple anemia.
- 3 Mention the official preparations of ergot of rye and state the dose of each preparation.
- 4 Define and illustrate serum therapy.
- 5 State the symptoms of Addison's disease.
- 6 What parts of colchicum are used in medicine? Which part is the more active? Mention the alkaloid of colchicum.
- 7 What are the therapeutic uses of terebene? State the dose of terebene.
- 8 Give the sequelae of cerebrospinal meningitis.
- 9 Of what is spartein an alkaloid? Describe the physiologic action of spartein.
- 10 Mention the therapeutic uses of pix liquida.
- 11 Describe the etiology and treatment of pertussis.
- 12 Give the common name of (a) corrosive mercuric chlorid, (b) mild mercuric chlorid. State the dose of each.
- 13 Define pharmacopoeia. Mention the official pharmacopoeias published in the English language.
- 14 Define hydronephrosis. Give the etiology and treatment of hydronephrosis.
- 15 State the ratio of strength of the fluid extract of a drug to the crude drug.

College Department

61st Medical Examination

Therapeutics, Practice and Materia Medica

Friday, June 26, 1903—9.15 a. m. to 12.15 p. m., only

" . . . in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its state board of medical examiners."

Laws of 1893, ch. 661, § 146

Questions prepared by the board of examiners representing the Medical Society of the State of New York.

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 State the therapeutic uses and the contraindications of aloes.
- 2 Compare strychnin sulfate with strychnin nitrate for hypodermic use.
- 3 Describe the physiologic action of strophanthus.
- 4 Give the therapeutic uses of boric acid.
- 5 Describe the symptoms and treatment of catarrh of the Eustachian tube.
- 6 To which of its ingredients does Fowler's solution owe its efficiency? State the dose and describe the dangers of Fowler's solution.
- 7 State the average dose of (a) powdered opium, (b) tincture of opium, (c) camphorated tincture of opium, (d) morphin sulfate, (e) codein.
- 8 Define neuritis. Give the etiology of multiple neuritis.
- 9 Discuss the therapeutic uses of alcohol.
- 10 Define thrombosis, embolism.
- 11 Mention the three animal extracts most frequently used in medicine.
- 12 In what conditions is the administration of veratrum viride indicated?
- 13 Describe the symptoms and treatment of cerebral anemia.
- 14 How do decoctions and infusions differ in mode of preparation?
- 15 Compare the typical temperature-curve of typhoid fever with that of remittent fever of malarial origin.

College Department

Board

58th Medical Examination

Place

Therapeutics, Practice and Materia Medica

Friday, September 26, 1902—9.15 a. m. to 12.15 p. m., only

" . . . in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its state board of medical examiners."

Laws of 1893, ch. 661, § 146

Questions prepared by the board of examiners representing the **Homeopathic Medical Society** of the State of New York.

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Give the therapeutic uses of *ailantus*.
- 2 Describe the *calcaria phosphorica* diarrhea.
- 3 Give the indications for *three* remedies curative in facial erysipelas.
- 4 Give the characteristic throat symptoms of *hepar sulfuris*.
- 5 Give the therapeutic uses of *lachesis*.
- 6 What symptoms are produced in female genitalia by *sepia*?
- 7 Mention the leading symptoms of *helonias*.
- 8 How should a case of *sciatica* be treated?
- 9 Give the treatment of general peritonitis.
- 10 Describe the cough of *squill*.
- 11 Give the general characteristics of *kali carbonicum*.
- 12 Give the indications for *apis*, *arsenicum*, *capsicum* and *eupatorium perfoliatum* in the treatment of intermittent fever.
- 13 Give the therapeutic uses of *cina*.
- 14 Give the indications for *three* remedies curative in whooping-cough.
- 15 How should a case of *angina pectoris* be treated?

College Department

59th Medical Examination

Therapeutics, Practice and Materia Medica

Friday, January 30, 1903—9.15 a. m. to 12.15 p. m., only

" . . . in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its state board of medical examiners."

Laws of 1893, ch. 661, § 146

Questions prepared by the board of examiners representing the **Homeopathic Medical Society** of the State of New York.

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Differentiate the colic of colocynth, dioscorea and plumbum.
- 2 Give the mental symptoms of anacardium, belladonna and platina.
- 3 Give the principal symptoms and treatment of scarlatina.
- 4 Give the symptoms of acute inflammatory rheumatism.
- 5 Describe the ovarian symptoms of apis, lachesis and palladium.
- 6 Give the symptoms and treatment of ophthalmia neonatorum.
- 7 What is prophylaxis? Give *three* illustrations of prophylaxis.
- 8 What is a polychrest? Mention *three* polychrests.
- 9 What is meant by (a) the decimal scale, (b) the centesimal scale?
- 10 How is aconite tincture prepared?
- 11 Differentiate aconite, gelsemium and veratrum viride in fevers.
- 12 Describe the leucorrhea of creosote.
- 13 Describe the cough of kali carbonicum.
- 14 Give the diagnostic symptoms and the treatment of pleuritis.
- 15 Give the symptoms and treatment of opium poisoning.

College Department

Board

60th Medical Examination

Place

Therapeutics, Practice and Materia Medica

Friday, May 22, 1903—9.15 a. m. to 12.15 p. m., only

" . . . in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its state board of medical examiners."

Laws of 1893, ch. 661, § 146

Questions prepared by the board of examiners representing the **Homeopathic Medical Society** of the State of New York.

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Give the stomach symptoms of robinia.
- 2 What symptoms are produced in the female sexual organs by cimicifuga racemosa?
- 3 Give the treatment of diphtheria.
- 4 Give the heart symptoms of cactus grandiflorus.
- 5 In what diseases is kali bichromicum curative?
- 6 Give the indications for iodin in membranous croup.
- 7 Give the therapeutic uses of phytolacca.
- 8 Describe the hemorrhage of sabina.
- 9 When should chelidonium be prescribed?
- 10 When should asafetida be prescribed?
- 11 When should muriatic acid be prescribed in typhoid fever?
- 12 Describe the tongue of terebinthina.
- 13 Give the eye symptoms of ruta.
- 14 Give the characteristic stomach symptoms of phosphorus.
- 15 When should ipecac be given in menorrhagia?

College Department

Board

61st Medical Examination

Place

Therapeutics, Practice and Materia Medica

Friday, June 26, 1903—9.15 a. m. to 12.15 p. m., only

" . . . in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its state board of medical examiners."

Laws of 1893, ch. 661, § 146

Questions prepared by the board of examiners representing the **Homeopathic Medical Society** of the State of New York.

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Give the indications for *three* remedies curative in enuresis.
- 2 Give *four* characteristics of *hepar sulfuris*.
- 3 When should *alumina* be given for constipation?
- 4 Describe the headache of *argentum nitricum*.
- 5 Describe the cough of *squill*.
- 6 Differentiate the symptoms of *hemoptysis* and *hematemesis*.
- 7 Describe the diarrhea of *croton tiglium*.
- 8 Give the symptoms and treatment of poisoning by *arsenic*.
- 9 Give the symptoms of *appendicitis* and mention the indications for the drugs most frequently used in the medicinal treatment of *appendicitis*.
- 10 Describe the urinary symptoms of *cantharis*.
- 11 Give the symptoms and treatment of *iritis*.
- 12 Describe the leading characteristics of *graphites*.
- 13 Give the indications for *natrum muriaticum* in *intermittent fever*.
- 14 Differentiate *ulcer* of the stomach and *cancer* of the stomach.
- 15 Describe the headache of (*a*) *anacardium*, (*b*) *ignatia*, (*c*) *silica*.

College Department

Board

58th Medical Examination

Place

Therapeutics, Practice and Materia Medica

Friday, September 26, 1902—9.15 a. m. to 12.15 p. m., only

" . . . in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its state board of medical examiners."

Laws of 1893, ch. 661, § 146

Questions prepared by the board of examiners representing the **Eclectic Medical Society** of the State of New York.

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Give the botanic name of sweet sumac and state, with doses, the preparations used in medicine.
- 2 Give a treatment of epistaxis.
- 3 Mention some of the specific glandular remedies.
- 4 Give the treatment of moist eczema.
- 5 What parts of the witch-hazel are used in medicine? Give the preparations.
- 6 Give the symptoms of secondary syphilis. Mention the specific alteratives in the treatment of syphilis.
- 7 Give the botanic name and the therapeutic use of male-fern.
- 8 Mention the drug recently used with success in the treatment of opium poisoning and state its dose.
- 9 From what is cocain obtained? State the therapeutic uses of cocain.
- 10 Write a prescription for alcoholic gastritis.
- 11 What is the source of iodin? Mention some of the preparations of iodin.
- 12 Mention the specific remedies in a case of uremic coma.
- 13 From what is glycerin obtained? State some of the therapeutic uses of glycerin.
- 14 Mention some of the varieties of vertigo. Give the specific treatment of each variety mentioned.
- 15 Give the preparations of ipecac and state their physiologic actions.

Therapeutics, Practice and Materia Medica

Friday, January 30, 1903—9.15 a. m. to 12.15 p. m., only

" . . . in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its state board of medical examiners."

Laws of 1893, ch. 661, § 146

Questions prepared by the board of examiners representing the Eclectic Medical Society of the State of New York.

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Give the specific indications for the use of opium in inflammation.
- 2 Describe American hemp and give its botanic name and its therapeutic uses.
- 3 Give the indications for veratrum viride in pneumonitis.
- 4 Give the common name and the therapeutic uses of mitchella repens.
- 5 Describe the application of cold baths in typhoid fever and state their curative value.
- 6 Write *two* prescriptions for the treatment of muscular rheumatism and describe the therapeutic effects of the remedies employed.
- 7 Give the remedies indicated in valvular heart lesion with intermittent pulse.
- 8 Give the treatment of paraplegia from thrombosis.
- 9 Define diaphoretic. Give the names of *four* diaphoretics and state the dose of each.
- 10 Give the treatment of scarlet fever. Mention *two* common sequels of scarlet fever.
- 11 Give the specific indications for the use of gelsemium.
- 12 Describe the physiologic action and the therapeutic uses of nitroglycerin.
- 13 Describe urticaria and give its treatment.
- 14 What specific remedies are indicated for the relief of the vomiting of chronic catarrhal gastritis?
- 15 Give the specific treatment of spasmodic croup with sudden dyspnoea.

Therapeutics, Practice and Materia Medica

Friday, May 22, 1903—9.15 a. m. to 12.15 p. m., only

" . . . in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its state board of medical examiners."

Laws of 1893, ch. 661, § 146

Questions prepared by the board of examiners representing the Eclectic Medical Society of the State of New York.

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Give a treatment of stone obstruction of the gall-bladder.
- 2 Mention the most common alkaloids of cinchona bark and give their therapeutic value.
- 3 Give the specific indications in a case of functional albuminuria.
- 4 Give the common name and the therapeutic uses of thuja.
- 5 Give an opinion as to strictly medical treatment of appendicitis.
- 6 Mention an effect of ergot other than that of controlling hemorrhage.
- 7 Mention the specific drug indications in a case of pleuritis.
- 8 From what is strychnin obtained? State the dose of strychnin.
- 9 What drugs dilate the capillaries?
- 10 Mention the principal preparations of ammonia and give the specific indications for their use.
- 11 Describe tonsillitis and give its specific treatment.
- 12 Give the specific symptoms calling for avena sativa.
- 13 Give an opinion as to the value of drug treatment in true diphtheritic croup.
- 14 Give the common name of dioscorea and mention its therapeutic uses.
- 15 Give the tongue indications for baptisia.

Therapeutics, Practice and Materia Medica

Friday, June 26, 1903—9.15 a. m. to 12.15 p. m., only

" . . . in therapeutics, practice and materia medica all the questions submitted to any candidate shall be chosen from those prepared by the board selected by that candidate, and shall be in harmony with the tenets of that school as determined by its state board of medical examiners."

Laws of 1893, ch. 661, § 146

Questions prepared by the board of examiners representing the Eclectic Medical Society of the State of New York.

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe a typical case of capillary bronchitis and give its specific treatment.
- 2 Give the botanic name of night-blooming cereus. Mention the preparations and doses of night-blooming cereus.
- 3 Mention the specific remedies for cancer of the stomach when accompanied by pain and hemoptysis.
- 4 Describe American hellebore and give its therapeutic uses and its indications.
- 5 Describe the general antiseptic treatment of tuberculosis.
- 6 Give the preparation, the dose and the therapeutic uses of codein.
- 7 Describe the specific treatment of rapid irritab'e heart without organic lesion.
- 8 Mention the preparations containing benzoin. Describe the properties of benzoin.
- 9 Describe a case of hysteria and give the treatment.
- 10 Give the common name and the therapeutic uses of colocynth. State the doses of the various official preparations of colocynth.
- 11 Describe the specific treatment of insomnia from general exhaustion.
- 12 Describe sandalwood and give its botanic name. Mention the preparations of sandalwood.
- 13 Differentiate the treatment of cerebral apoplexy and embolism.
- 14 State the botanic name and the therapeutic uses of peppermint. Mention the parts of the plant employed in medicine.
- 15 Give the specific treatment of congestion of the liver when accompanied by pain and vomiting.

ANATOMY

Tuesday, September 23, 1902—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe the inferior maxillary bone.
- 2 Describe the lesser wings of the sphenoid bone.
- 3 Describe the palatine surface of the superior maxillary bone.
- 4 Describe the submaxillary triangle.
- 5 Describe the middle cerebral artery.
- 6 Mention the facial branches of the facial artery.
- 7 Describe the internal jugular vein.
- 8 Describe the lateral sinuses.
- 9 Give the origin, insertion, nerve supply and action of the internal pterygoid muscle.
- 10 Mention the muscles attached to the superior maxillary bone.
- 11 Mention the muscles that depress the lower jaw.
- 12 Describe the supra-orbital artery.
- 13 What structures pass through the foramen magnum?
- 14 Mention the vessels and nerves that supply the sub-maxillary gland.
- 15 Describe the facial nerve.

College Department

36th Dental Examination

No.

Place

ANATOMY

Tuesday, January 27, 1903—9.15 a. m. to 12.15 p. m., on

Answer any 10 of the questions on this paper but no more. Check number (✓) of each one of the questions you have answered.

- 1 Describe the ramus of the jaw and mention the muscles and ligaments attached to it.
- 2 Give the blood supply of (a) the tonsils, (b) the thyroid gland.
- 3 Describe the blood supply of bone.
- 4 Describe the pons Varolii.
- 5 Give the articulations of the ethmoid bone.
- 6 Describe the internal maxillary artery.
- 7 Describe the vena corporis striati.
- 8 What is Meckel's ganglion?
- 9 Describe the orbicularis oris muscle and mention its nerve supply.
- 10 Describe the hyoglossus muscle.
- 11 Describe the internal pterygoid muscle. Give the origin, insertion and nerve supply of the internal pterygoid muscle.
- 12 Describe the inferior or basilar surface of the temporal bone.
- 13 Describe the internal surface of the inferior maxilla bone.
- 14 Bound the superior carotid triangle.
- 15 Describe the antrum of Highmore.

ANATOMY

Tuesday, May 19, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Give the general anatomy of muscle. State the varieties of muscle.
- 2 Give the origin, insertion, blood and nerve supply of (a) the digastric muscle, (b) the buccinator muscle.
- 3 Give the courses of the thyroid veins.
- 4 Describe the palate bone.
- 5 Describe the fissure of Rolando and give its location.
- 6 Mention the branches of the facial artery on the neck.
- 7 Describe the vomer.
- 8 State the branches of the ophthalmic artery.
- 9 Describe the superior petrosal sinus.
- 10 Describe the inferior maxillary division of the fifth nerve.
- 11 Describe the external pterygoid muscle and state its origin, insertion and nerve supply.
- 12 Describe the mylohyoid muscle.
- 13 Describe the facial surface of the superior maxillary bone.
- 14 Bound the anterior triangle of the neck.
- 15 Describe the fissure of Sylvius.

College Department

38th Dental Examination

ANATOMY

Tuesday, June 23, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe the island of Reil.
- 2 State the formation and course of the inferior vena cava.
- 3 State the origin, exit, distribution and functions of the pneumogastric nerve.
- 4 Describe the hyoid bone.
- 5 Describe the lingual artery and state its branches.
- 6 Describe the circle of Willis.
- 7 Describe the cavernous sinus.
- 8 Describe the superior maxillary nerve (second division of the fifth nerve).
- 9 Describe the temporal muscle. State the origin, insertion and nerve supply of the temporal muscle.
- 10 Mention the extrinsic muscles of the tongue.
- 11 Describe the palatine surface of the superior maxillary bone.
- 12 Describe the lesser (orbital) wings of the sphenoid bone.
- 13 Describe the thyroid gland.
- 14 Bound the occipital triangle.
- 15 Describe the superior maxillary bone.

PHYSIOLOGY AND HYGIENE

Tuesday, September 23, 1902—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe the two systems of nerves in the human body.
- 2 Describe reflex action. Give an example of a reflex action that is automatically performed.
- 3 Describe a ganglion.
- 4 Mention the organs necessary for sensation.
- 5 State the average amount of sweat excreted in 24 hours. Is this excretion necessary to sustain life? Give reasons.
- 6 Give the chemical composition of muscle.
- 7 Describe the structure and state the functions of the skin.
- 8 State the effect of bile on the process of digestion.
- 9 State the nervous disorders most common among school children. Mention some of the causes of these disorders.
- 10 Describe vitiation of the air from lack of ventilation.
- 11 What should be the lowest specific gravity of fresh milk?
- 12 In 100 parts of cow's milk, mention the percentage of (a) proteids, (b) fats, (c) sugar, (d) salt, (e) water.
- 13 Describe the stomach and its glands.
- 14 Describe secretions. State how the process of secretion is carried on.
- 15 Describe the salivary glands and give their location.

PHYSIOLOGY AND HYGIENE

Tuesday, January 27, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe the effects of starvation.
- 2 Describe the course of the blood through the circulatory system.
- 3 Give the mechanism of respiration.
- 4 Describe the three forms of digestion.
- 5 Describe peristalsis.
- 6 State the functions of dental pulp.
- 7 Describe (a) the red blood-corpuscles, (b) the white blood-corpuscles. State their functions.
- 8 Describe chyme.
- 9 State the function of the hypoglossal or sublingual nerve.
- 10 Define nerves of special sense.
- 11 State the composition of cow's milk.
- 12 Mention an infectious disease which is often carried by drinking water, and show how the germs of this disease are communicated to the water.
- 13 Mention the various tissues of the body.
- 14 State the methods that should be employed in order to insure proper hygienic conditions in your office and its surroundings.
- 15 State the normal reaction of saliva. Give a test for this reaction.

PHYSIOLOGY AND HYGIENE**Tuesday, May 19, 1903 — 1.15 to 4.15 p. m., only**

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 State the function of the facial nerve.
- 2 Mention the conditions that affect bodily temperature.
- 3 State the function of glycogen.
- 4 State the function of the stomach.
- 5 State where the absorption of proteids takes place.
- 6 State how the act of inspiration is accomplished.
- 7 Describe the act of mastication.
- 8 Describe the circulation of the blood.
- 9 Mention the two great groups of substances that compose the body. To which group does protoplasm belong?
- 10 What proportion of the weight of the body is blood? State with regard to blood (a) its specific gravity, (b) its reaction, (c) on what its color depends.
- 11 To what are the sounds of the heart due? What are the heart sounds called?
- 12 State the composition of (a) pure air, (b) expired air.
- 13 Describe the transformation of food into tissue.
- 14 Describe the liver and give its location and functions.
- 15 Mention the excretory organs and show how each performs the function of excretion.

College Department

No.

38th Dental Examination

Place

PHYSIOLOGY AND HYGIENE

Tuesday, June 23, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe the movements of the ribs during inhalation.
- 2 State the functions of the superior maxillary nerve (second division of the fifth nerve).
- 3 Give the properties and composition of mixed saliva.
- 4 Describe the mechanism of deglutition.
- 5 State why blood does not coagulate in the blood-vessels.
- 6 Describe the process of the secretion of bile.
- 7 Describe intestinal digestion.
- 8 State the character of the food absorbed by the lymphatic circulation and its manner of reaching the blood circulation.
- 9 State the number of cubic feet of oxygen absorbed in 24 hours.
- 10 What hygienic measures should a dentist employ?
- 11 Mention *six* kinds of food from which starch is derived.
- 12 State the functions of the cerebrum.
- 13 Where are the functions of the sympathetic nervous system mostly shown?
- 14 What nerve supply conducts the sense of taste?
- 15 State the physiologic relation of the pneumogastric nerve to the stomach.

College Department

No.

35th Dental Examination

Place

CHEMISTRY AND METALLURGY

Wednesday, September 24, 1902—9.15 a.m. to 12.15 p.m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Differentiate organic chemistry and inorganic chemistry.
- 2 Mention the *four* chief elements that enter into organic compounds.
- 3 State the *three* principal methods used for the determination of atomic weights.
- 4 State one of the reasons for regarding the atomic weight of oxygen as 16 instead of 8.
- 5 State the use of the syllables *ous* and *ic*, *ite* and *ate* in distinguishing compounds.
- 6 Explain the following terms: slow combustion, combustible substance, supporter of combustion.
- 7 Describe ozone. Differentiate ozone and common oxygen and state the molecular weight of each.
- 8 Explain electrolysis.
- 9 Define anode, cathode, circuit, electric current, inductive force, electromotive force.
- 10 State the uses of electricity in generating heat, light and mechanical motion and in favoring chemical action.
- 11 State the composition and properties of hydrogen dioxid. Give the process of manufacture of hydrogen dioxid.
- 12 Describe a method by which the four chief constituents of atmospheric air may be determined.
- 13 Give the properties of phosphoric acid and describe the official process of making it.
- 14 Differentiate glacial phosphoric acid and common phosphoric acid and state in what respect the action of the former on the animal system differs from that of the latter.
- 15 Mention the two groups into which metals are divided.

CHEMISTRY AND METALLURGY

Wednesday, January 28, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Define chemical affinity and state how it differs from other forces.
- 2 Describe a method of obtaining the specific gravity of (a) solids, (b) liquids, (c) gases.
- 3 Give the common name of *each* of the following: H_2O , HNO_3 , CO_2 , N_2O .
- 4 Differentiate sulfate, sulfite and sulfid.
- 5 Describe ozone. Differentiate ozone and common oxygen and state the molecular weight of each.
- 6 State the composition and properties of hydrogen dioxid. Describe a process of preparing hydrogen dioxid.
- 7 Distinguish between a disinfectant and an antiseptic. Mention (a) *three* disinfectants, (b) *three* antiseptics.
- 8 Describe a method by which electricity produces (a) heat, (b) light, (c) mechanical energy. Show that electricity favors chemical action.
- 9 Give the chemical symbols of *five* metals and state the fusing point of each.
- 10 Write the equation showing the reaction on zinc of (a) hydrochloric acid, (b) sulfuric acid.
- 11 Distinguish chemically between oxychlorid of zinc and phosphate (oxyphosphate) of zinc. State the conditions indicating the uses of each in dentistry.
- 12 Mention *two* important ores of zinc and describe a process of obtaining zinc from one of the ores mentioned.
- 13 Give the properties of metallic zinc and state its uses in dentistry.
- 14 Give the comparative thermal and electric conductivity of tin, silver, platinum, gold.
- 15 Describe the chemical process involved in the setting of amalgam. State the conditions under which amalgam would be improved by washing.

CHEMISTRY AND METALLURGY

Wednesday, May 20, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Mention the approximate number of elements recognized at the present time.
- 2 Give the symbol and the atomic weight of each of *five* important elements.
- 3 Distinguish between organic compound and inorganic compound.
- 4 State the process by which the elements in a given compound are determined.
- 5 Define atom, molecule. By what agent are atoms united to form compounds?
- 6 Differentiate sensible heat, latent heat and specific heat.
- 7 Define capillary attraction, absorption, diffusion, osmose.
- 8 Write the formula of (a) common (ethyl) alcohol, (b) sulfuric ether, (c) acetic acid.
- 9 State how muriatic acid is prepared and give its formula and use.
- 10 Write the formula of (a) sulfuric acid, (b) nitric acid, (c) nitrous oxid.
- 11 State why an alloy becomes brittle when heated.
- 12 Define electrolysis. Describe the process of electrolysis.
- 13 Differentiate metallic element, metallic compound and amalgam.
- 14 Describe *two* methods of separating the precious metals from sweepings and filings.
- 15 Describe a method of obtaining silver from one of the native ores.

College Department

No.

38th Dental Examination

Place

CHEMISTRY AND METALLURGY**Wednesday, June 24, 1903—9.15 a. m. to 12.15 p. m., only**

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Define matter, force, energy.
- 2 Define cohesion, adhesion, gravitation. Mention instances of the action of each.
- 3 Define a chemical compound. Mention *three* chemical compounds.
- 4 State the general physical and chemical properties of an alkaloid.
- 5 What is analytic chemistry? State the object of (a) qualitative analysis, (b) quantitative analysis.
- 6 Mention an antidote for corrosive sublimate.
- 7 Explain the reaction of H_2O_2 on putrescent pulps.
- 8 What is blue vitriol? Describe the manufacture of blue vitriol and state its properties. Mention the uses in dentistry of blue vitriol.
- 9 From what is lactic acid obtained? Describe a process of obtaining lactic acid and state its use in dentistry.
- 10 State the composition and properties of oxalic acid. Describe the manufacture of oxalic acid and mention an antidote for oxalic acid poisoning.
- 11 State the use of H_2SO_4 in operations on the teeth.
- 12 Describe (a) negative metallic fillings, (b) positive metallic fillings.
- 13 State the requisite properties of metals used for dies.
- 14 State the two processes of joining metals.
- 15 Define metallurgy. Differentiate a metal and a metalloid and give an example of each.

ORAL SURGERY AND PATHOLOGY

Wednesday, September 24, 1902—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Differentiate neuralgia and neuritis.
- 2 Describe the character of pain in trifacial neuralgia. State the location of pain when each of the three divisions is affected.
- 3 Give treatment of trifacial neuralgia.
- 4 Give the etiology, symptoms and treatment of abscess of the inferior maxilla following compound fracture.
- 5 Describe the characteristics of carcinomatous-ulcer. Give the cause of putrefaction of carcinomatous ulcer.
- 6 Give the etiology of tumors.
- 7 Give the etiology and treatment of fibrous ankylosis.
- 8 Give the symptoms and treatment of syphilitic periostitis. State the pathologic changes that may occur in syphilitic periostitis.
- 9 State the causes of irregularities of the teeth.
- 10 State the causes of arrest of development of the maxillary bones.
- 11 Give treatment of the ununited fractures of the inferior maxilla.
- 12 Give the etiology, symptoms and treatment of salivary calculus.
- 13 Give the etiology, symptoms and treatment of acute diffuse periostitis of the inferior maxilla.
- 14 Define septicemia. State in what manner the blood becomes infected.
- 15 Define asphyxia. Give the symptoms and treatment of asphyxia.

ORAL SURGERY AND PATHOLOGY

Wednesday, January 28, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe (a) local hyperemia, (b) passive hyperemia.
- 2 State how micro-organisms produce inflammation.
- 3 Give the etiology, clinical appearance and treatment of smoker's patch of the tongue.
- 4 Describe the operation of removing a malignant tumor.
- 5 Describe (a) frequent pulse, (b) irritable pulse, (c) soft pulse. State what each indicates.
- 6 Describe abortive treatment of pulpitis.
- 7 Differentiate shock and syncope.
- 8 Describe (a) septic wounds, (b) aseptic wounds. Give treatment.
- 9 Give the etiology, pathology and treatment of acute alveolar abscess.
- 10 Describe the methods used to arrest arterial hemorrhage.
- 11 Give the etiology, symptoms and treatment of unilateral dislocation of the temporomaxillary articulation.
- 12 Describe the methods of producing local anesthesia.
- 13 Give the etiology, diagnosis and treatment of marginal pericementitis.
- 14 Give the pathology of dental caries.
- 15 Give the anatomic and the clinical varieties of hemorrhage.

ORAL SURGERY AND PATHOLOGY

Wednesday, May 20, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe the structural changes that occur in inflammation.
- 2 Give the pathology of cellular necrosis.
- 3 Give the etiology, pathology and treatment of abscess (not alveolar).
- 4 Describe the operation of removing a benign tumor.
- 5 Differentiate carcinoma of the tongue and gummatous ulcer of the tongue.
- 6 Describe (a) quick pulse, (b) feeble pulse, (c) irregular pulse. State what each indicates.
- 7 Mention the active agents of decomposition and state what conditions favor their development.
- 8 Give the etiology of secondary hemorrhage. State the methods of arresting secondary hemorrhage.
- 9 Give the etiology and treatment of noisy movements of the temporomaxillary articulation.
- 10 Differentiate dislocation of the temporomaxillary articulation and fracture of the neck of the condyle.
- 11 Describe the symptoms of syncope that may occur during the administration of chloroform. Give treatment.
- 12 Give the etiology, diagnosis and treatment of ulcer.
- 13 Give the diagnosis and treatment of acute purulent pulpitis.
- 14 Describe Miller's theory of dental caries.
- 15 Give the etiology and treatment of acute infectious osteomyelitis of the inferior maxilla.

ORAL SURGERY AND PATHOLOGY

Wednesday, June 24, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 State the mechanical causes of necrosis.
- 2 Give the etiology and characteristics of suppurative inflammation.
- 3 Mention the diseases that may be mistaken for carcinoma of the tongue.
- 4 Describe intermittent pulse, thready pulse, hard pulse.
- 5 State how ptomains produce systemic intoxication. Give the manifestations.
- 6 Mention the disinfecting lotions used for surgical irrigation and state their advantages.
- 7 Describe the necessary procedure for successful treatment of fractures of the inferior maxilla.
- 8 State what the elevation of the body temperature during the treatment of fractures of the maxillae indicates. Give treatment.
- 9 Give the etiology, pathology and treatment of chronic alveolar abscess.
- 10 State the causes of mechanical asphyxia during chloroform anesthesia. Give treatment.
- 11 Give the etiology and symptoms of subluxation of the temporomaxillary articulation.
- 12 State the method of arresting hemorrhage from the inferior dental canal.
- 13 Give the etiology, diagnosis and prognosis of carcinoma of the mucous membrane of the buccal cavity.
- 14 Mention the rules necessary for surgical cleanliness.
- 15 Give the etiology and treatment of gangrene of the pulp.

OPERATIVE DENTISTRY

Thursday, September 25, 1902—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 State the advantages and disadvantages of matrices in introducing approximal fillings.
- 2 Differentiate erosion and abrasion. Give treatment for preventing waste, stating remedies and technic of restoration.
- 3 Describe the treatment of pericementitis when the root canal is permanently filled.
- 4 Describe the local treatment of pyorrhea alveolaris and state its object, the remedies used and the results.
- 5 Describe the treatment to prevent decay in the distal surfaces of the second deciduous molars when the child is 6 years old. Give reasons.
- 6 Diagnose blind abscess and give prognosis, operation and treatment.
- 7 Characterize hypersensitive dentin and give its treatment. Mention medicaments to be applied and state their actions on the tissues.
- 8 Describe a method of treating a sensitive tooth before filling, to prevent shock from chemical change after filling.
- 9 Describe a method of filling to prevent fracture in mastication, when only the buccal and lingual walls remain.
- 10 Diagnose pulp stone in a pulp and describe the operation required.
- 11 State under what condition extension for prevention is good practice in filling teeth.
- 12 Describe the method of removing pulps by pressure.
- 13 State the preferable form and condition of gold used in filling poorly organized, frail teeth. Give method of use.
- 14 Describe the general rules governing the preparation of a cavity and the filling of a cavity with gold.
- 15 State the advantages of amalgam over other plastic filling materials.

College Department

36th Dental Examination

No.

Place

OPERATIVE DENTISTRY

Thursday, January 29, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

1 State the advantages claimed for combination fillings of gold and amalgam. Under what conditions are such fillings inserted? Give technic of operation.

2 State why teeth recently filled are more subject to shock from thermal changes than other teeth. Give preventive treatment.

3 Differentiate the forms of plugger points preferable for cohesive gold fillings and for non-cohesive gold fillings. Justify your choice.

4 State the conditions under which shell crowns are used to preserve bicuspid teeth. Describe the operation.

5 State the reasons for the use of sulfuric acid in the local treatment of pyorrhea alveolaris. Describe the method of using it and give subsequent treatment.

6 Describe the treatment of sensitive dentin to relieve pain in excavating a cavity and to prevent shock after filling. Mention medicaments used.

7 Give reasons why extreme sensitiveness in dentin should be relieved before inserting a filling.

8 State an efficient treatment for teeth subject to pain either from contact with salt or sugar at the gingival border or from use of clasps on plates.

9 Describe method of inserting a filling of tin and give reasons for the arrest of caries in teeth by such filling.

10 Describe a method of treating an exposed pulp and of applying a cap.

11 Describe the most efficient method of treating green stain, giving subsequent treatment to prevent its return.

12 In what class of cavities are gold fillings in the form of cylinders preferable? Describe the preparation of a cavity for such a filling.

13 Describe the treatment of decay on the lingual surfaces of molars below the gingival border.

14 State the conditions under which plastic fillings are preferable to gold fillings. Give reasons.

15 State the conditions justifying the extraction of the six year molars.

College Department

37th Dental Examination

Place

OPERATIVE DENTISTRY

Thursday, May 21, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

1 Differentiate the deposits on the teeth in pyorrhea alveolaris and salivary calculus. Give the cause, prognosis and treatment of each.

2 Differentiate erosion of the teeth and abrasion of the teeth. State the cause, giving operation and treatment. Mention the medicaments used and state their action on the tissues.

3 Differentiate a cohesive approximal gold filling and a non-cohesive approximal gold filling. State the advantages of using each and give technic of each operation.

4 Give in detail the recognized stages in the preparation of an occlusal cavity for a gold filling. Describe the instruments required and give their method of use.

5 State why fillings of gold and tin combined arrest decay in teeth when gold fillings fail.

6 State why the death of a pulp often results in discoloration of a tooth, and give a method of restoring such a tooth to its natural color.

7 State the reason for the change in the hue of teeth when pulps are removed shortly after they have been devitalized.

8 State a class of cavities in which a combination of non-cohesive and cohesive gold is indicated. Give reasons for this method and describe the operation of such fillings.

9 Give method of extracting a root enlarged by exostosis so as to avoid fracture of the jaw or tooth from the operation.

10 What causes the surface of gold fillings to blacken in some cases?

11 Give method of (a) preparing amalgam, (b) condensing amalgam in a cavity.

12 Describe the best method of keeping cavities dry for filling other than by the use of the rubber dam.

13 Give treatment of a congested pulp in an incisor having a gold filling in good condition on approximal surface.

14 Describe the method of treating and filling small approximal cavities at the gingival margin, when the crown is otherwise normal and the teeth are in firm contact.

15 Describe the various combination fillings in use. State the advantage of each and give the technic of introducing each.



College Department

38th Dental Examination

No.

Place

OPERATIVE DENTISTRY

Thursday, June 25, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe the method of preparing approximal cavities for contouring with gold.
- 2 Mention conditions that render the use of a matrix desirable in introducing approximal gold fillings.
- 3 Give treatment of pericementitis resulting from removal of pulp and filling of nerve canal.
- 4 Give operation and treatment in a case of pyorrhea alveolaris.
- 5 Describe a method of restoring, with a combination of gold and cement, badly decayed, frail crowns of teeth.
- 6 State why tin fillings arrest decay in teeth when gold fillings fail.
- 7 Mention the injuries that may be caused by wedging teeth.
- 8 Give technic of the operation of restoring teeth by use of porcelain inlays.
- 9 What class of teeth in children is more liable to injury from wedging than in adults?
- 10 Describe a safe method of devitalizing a pulp when the cavity of decay is located beneath the gums.
- 11 Give the diagnosis of pericemental abscess. State the treatment employed and the medicaments used.
- 12 Give in detail the treatment of teeth discolored by death of the pulp, stating the medicaments used.
- 13 State the serious pathologic conditions liable to result from devitalizing pulps.
- 14 Describe a method of filling a root canal having a large foramen at the apex. Give technic of operation.
- 15 Describe the technic of filling pulp canals, stating the materials used.

PROSTHETIC DENTISTRY

Thursday, September 25, 1902 — 1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 State the best materials with which to secure a perfect impression in regulating cases.
- 2 Mention the prominent points touched by the "line of harmony" as described by Dr Edward H. Angle.
- 3 Mention the cells that are active in filling in bone in the space made by moving a tooth.
- 4 In regulating the teeth state the requirements of an anchor tooth.
- 5 Give the essential properties of a metal die.
- 6 Mention the best material for molding, giving reasons.
- 7 State the uses of aluminum in dentistry. Describe the method of annealing and give fusing-point.
- 8 State the precautions that should be taken to prevent checking during soldering in backing a porcelain facing.
- 9 Give the formula of a low fusing metal die.
- 10 State the cause of pits in soldering.
- 11 Mention some of the various methods of retaining artificial dentures.
- 12 State some of the uses of liquid silix.
- 13 State which, in your opinion, is the best artificial crown for any of the six upper front teeth, giving reasons.
- 14 Give a formula of a 20-carat solder.
- 15 Describe the Logan crown.

College Department

No.

36th Dental Examination

Place

PROSTHETIC DENTISTRY

Thursday, January 29, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 How may the extreme limit of the posterior border of an upper plate be determined?
- 2 A common result of wearing lower plates that accurately fit a model, is a tendency of the plates to bury their buccal edges in the soft tissues; state how this tendency may be overcome.
- 3 If a vacuum chamber is used in a full upper plate, what relation should it bear to the center of gravity?
- 4 Describe the preparation of a model for molding.
- 5 Define (a) die, (b) counter die. Mention the best metals for each.
- 6 Describe a Hawes molding-flask and state why it is used.
- 7 Give the formula of platinum solder.
- 8 Mention *three* ingredients used in manufacturing the body of porcelain teeth.
- 9 What material gives the translucency to an artificial tooth?
- 10 What color is produced by titanium in porcelain enamel?
- 11 Describe a method of expanding the arch other than with the Coffin plate.
- 12 Describe a method of bringing into place a delayed or partly erupted cuspid tooth.
- 13 Give a method of reducing an extruded central incisor.
- 14 Describe the Logan crown.
- 15 Give a method of elongating bicuspid when they fail to occlude properly.

College Department

Place

37th Dental Examination

PROSTHETIC DENTISTRY

Thursday, May 21, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

1 Describe the shape and color of teeth that should be selected when the lymphatic temperament predominates.

2 Which are the longer, the buccal or the palatal cusps of the superior bicuspid and molars?

3 Describe the method of making an all-porcelain upper denture.

4 What proportion of its bulk will porcelain shrink when baking?

5 Describe an electric oven for fusing porcelain.

6 Describe the method of making a full lower denture by the cheoplastic process.

7 Describe the method of making a partial lower plate consisting of bicuspid and molars, on gold; also method of strengthening the plate behind the anterior teeth.

8 Give details of constructing a gold cap for a canine tooth.

9 Describe the method of constructing a crown with a porcelain front on a bicuspid having a live pulp.

10 Describe the method of using "Victoria metal" to strengthen a rubber partial upper plate.

11 Mention the carat and gage of plate most desirable for crowns.

12 Describe the method of making an upper denture on swaged aluminum, the teeth to be attached with rubber.

13 State the method of replacing a tooth broken from a denture of continuous gum.

14 Give method of bringing into proper position the upper central and lateral incisors when the central incisors protrude and the lateral incisors bite inside the lower teeth.

15 Describe the Van Woert crown.

PROSTHETIC DENTISTRY

Thursday, June 25, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

1 Describe a method of bringing into proper position a right upper cuspid that bites inside the circle of the lower teeth.

2 If the upper cuspids of a patient 15 years of age have failed to show signs of erupting, by what means may they be positively located?

3 How may the cuspids mentioned in question 2 be brought into proper position?

4 Describe the Richmond crown.

5 Describe Dr Farrar's appliance for moving roots forward.

6 Describe Dr Farrar's appliance for moving roots back.

7 Describe Dr Case's appliance for raising the occlusion of the lower bicuspid.

8 Describe a simple retainer for a single tooth that has been rotated.

9 Describe Case's retainer for the anterior teeth.

10 Describe a method by which clasps used about bicuspids or molars, or the plate may be prevented from impinging on the gum.

11 Describe the occlusion of the upper and lower teeth.

12 In plain teeth for rubber work, what is meant by (a) short ridge cap, (b) long ridge cap? What governs the selection of each for the case?

13 In what relation to the alveolar ridge should artificial teeth be placed?

14 In making a full upper denture on rubber, is it any advantage to reproduce the rugae on the lingual surface of the plate, either as an aid to articulation of sound or to management? Give reasons.

15 Describe the process of making a molar crown with a gold band and an S. S. White countersunk-pin tooth.

THERAPEUTICS AND MATERIA MEDICA

Friday, September 26, 1902—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Define astringents. Mention *two* vegetable and *two* mineral astringents.
- 2 Distinguish between a narcotic and a hypnotic.
- 3 Mention *four* constituents of a dentrifice and give the properties of each.
- 4 Define sialagogue. Mention *one* sialagogue.
- 5 Mention *three* alteratives and state the dose of each.
- 6 Mention *three* medicines used to produce emesis. State how each is administered and mention the dose of each.
- 7 Define diuretic, diaphoretic, emetic, expectorant.
- 8 Mention *one* medicine that increases blood pressure; *one* medicine that decreases blood pressure.
- 9 What is meant by the physiologic action of a drug?
- 10 Mention (a) a coagulating antiseptic, (b) a non-coagulating antiseptic.
- 11 State the dental uses of carbolic acid.
- 12 State the reasons for or against the use of arsenious acid as an obtundent of sensitive dentin.
- 13 Arrange the following in the order of their efficiency as disinfectants: carbolic acid, bichlorid of mercury, oil of cloves.
- 14 Mention the contraindications of ether anesthesia.
- 15 Give the dental uses of formaldehyde. State in regard to formaldehyde (a) the advantages of its use, (b) the objections to its use.

College Department

36th Dental Examination

No.

Place

THERAPEUTICS AND MATERIA MEDICA

Friday, January 30, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

1 Mention *four* avenues by which medicines may enter the circulation.

2 Is general or local anesthesia the more suitable in operations about the mouth? Explain.

3 Define analgesic. Mention *two* analgesics.

4 Define antipyretic. Mention *two* antipyretics.

5 What is meant by the active principle of a drug? Give an example.

6 Write a prescription for an antiseptic mouth wash, using no proprietary terms.

7 Differentiate a tonic, a stimulant and an irritant.

8 Mention (*a*) a coagulating antiseptic, (*b*) a non-coagulating antiseptic.

9 What medicines, local and constitutional, are useful in the treatment of pericementitis?

10 Mention the drugs useful in the local treatment of pyorrhea alveolaris and state their effects.

11 State the dental uses of carbolic acid.

12 State the physiologic action of digitalis.

13 What effect on blood pressure has (*a*) ether, (*b*) chloroform?

14 Give the treatment of cocain poisoning.

15 Describe the physiologic action of amyl nitrite. State the doses of amyl nitrite and give the methods of administering it.

College Department

No.

37th Dental Examination

Place

THERAPEUTICS AND MATERIA MEDICA

Friday, May 22, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Mention *four* methods of administering medicine.
- 2 What physical states of medicine are most suitable for different methods of administering?
- 3 Define escharotics. Mention *two* escharotics and state their dental uses.
- 4 State the dental uses of alkalis. Mention *three* alkalis.
- 5 Mention *three* emetics. State in regard to each the dose and the manner of administering.
- 6 Describe the method of inducing nitrous oxid anesthesia and mention the precautions to be observed.
- 7 Write a prescription for an astringent mouth wash, using no proprietary terms.
- 8 Differentiate decoction, infusion and tincture.
- 9 Mention *three* disinfectants suitable for use in a putrescent pulp canal.
- 10 Mention, with doses, *three* coal-tar preparations useful in the treatment of neuralgia.
- 11 Mention a chemical antidote for carbolic acid.
- 12 Describe the mouth signs of mercurial poisoning.
- 13 In which of the following conditions is amyl nitrite indicated: collapse from ether anesthesia or collapse from chloroform anesthesia? Explain.
- 14 State the dental uses of silver nitrate.
- 15 Give the dental uses of formaldehyde. State in regard to formaldehyde (a) the advantages of its use, (b) the objections to its use.

College Department

38th Dental Examination

No.

Place

THERAPEUTICS AND MATERIA MEDICA**Friday, June 26, 1903—9.15 a. m. to 12.15 p. m., only**

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Define materia medica, therapeutics.
- 2 Under what conditions is it more advantageous to give a medicine hypodermically than by the stomach?
- 3 Define general anesthetic, local anesthetic. Mention *two* general and *two* local anesthetics.
- 4 Distinguish between a narcotic and a hypnotic.
- 5 Mention the contraindications to the use of (a) chloroform, (b) ether. State the precautions to be observed.
- 6 Describe the treatment that should be employed in case of collapse from (a) chloroform anesthesia, (b) ether anesthesia.
- 7 Define diuretic, diaphoretic, emetic, expectorant.
- 8 Write a prescription for a wash for a purulent antrum, using no proprietary terms.
- 9 Mention *two* heart stimulants administered by inhalation and state under what circumstances they are particularly useful.
- 10 What preparation of iron is particularly injurious to the teeth? Explain.
- 11 State the dental uses of iodine.
- 12 What are the indications for the use of opium, potassium bromid and chloral to produce sleep?
- 13 State the physiologic action of aconite.
- 14 Describe the symptoms of cocain poisoning. Mention *two* antidotes.
- 15 Of what is *each* of the following an alkaloid: (a) strychnin, (b) atropin, (c) morphin? State the dose of each.

HISTOLOGY

Friday, September 26, 1902 — 1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe the nucleus of a cell.
- 2 Describe the structure of the mucous membrane.
- 3 By what tissues are nerve fibers held together?
- 4 Describe the appearance of a dry section of bone.
- 5 Describe the lacunae of bone.
- 6 Define osteoblast, osteoclast.
- 7 What tissues are developed from the parablast?
- 8 Mention the structures contained in a typical cell.
- 9 Describe the pericementum.
- 10 Describe the two kinds of tissue of which bone is composed.
- 11 Describe the gross anatomy of the tooth.
- 12 Define neuro-epithelium and state where it is found.
- 13 Mention the tissues composing the tooth pulp.
- 14 Describe lymph.
- 15 Describe the lymphatic system.

College Department

36th Dental Examination

No.

Place

HISTOLOGY

Friday, January 30, 1903—1.15 to 4.15 p. m.. only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Define histology.
- 2 Describe a cell.
- 3 From what is the animal body developed?
- 4 Define fiber.
- 5 What are the elementary tissues called?
- 6 Mention the varieties of cartilage.
- 7 Describe the structure of cancellous bone.
- 8 Describe protoplasm.
- 9 Mention the nourishing fluids of the body.
- 10 Describe blood-plates.
- 11 What is fibrin?
- 12 Describe the physical characteristics of yellow elastic tissue.
- 13 Give the location of stratified epithelium.
- 14 Define marginal zone.
- 15 State the function of cilia.

HISTOLOGY

Friday, May 22, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

1 Describe a method of hardening tissues for microscopic sections.

2 Describe the intercellular or fibrous constituents of connective tissue. Describe *one* variety.

3 Describe the microscopic appearance of pavement epithelium.

4 Describe the development of elastic fibers.

5 Describe fibrocartilage.

6 Describe Peyer's patches.

7 Give the composition of dental pulp.

8 Describe the process by which osteoblasts are converted into bone cells.

9 Mention the elements composing medullated nerve fiber.

10 Describe the structure of the mucous membrane lining the oral cavity.

11 Describe the structure of the salivary glands.

12 Describe the microscopic appearance of the outer and of the inner layer of periosteum.

13 Describe the structure of striated or voluntary muscles.

14 State where marrow is found. Describe the varieties of marrow.

15 Describe the morphologic constituents of blood

HISTOLOGY

Friday, June 26, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Describe the method of cutting tissues for microscopic sections.
- 2 Describe the cellular elements of connective tissue.
- 3 Describe the microscopic appearance of columnar epithelium.
- 4 Give the microscopic appearance of a non-medullated nerve fiber.
- 5 Describe the development of bone.
- 6 Describe the development of dentin.
- 7 State how spongy bone is converted into compact bone.
- 8 Describe the structure of a red blood-corpuscle.
- 9 Define periosteum and give its structure.
- 10 Describe the development of cartilage.
- 11 Describe the reticulum of lymphoid tissue.
- 12 Describe the perichondrium and give its structure.
- 13 Describe the microscopic appearance of adipose tissue.
- 14 Describe hyaline cartilage.
- 15 Describe the structure of non-striated or involuntary muscles.

College Department

30th Veterinary Examination

Place

ANATOMY

Tuesday, September 23, 1902—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Describe the anatomic structure of long bones.
- 2 Mention the bones of the cranium. Describe the occipital bone.
- 3 Describe the shoulder-joint.
- 4 Describe the fetlock-joint.
- 5 Mention the muscles of the superior cervical region, and describe the cervical portion of the trapezius.
- 6 Mention *four* extensor muscles originating in the anterior brachial region and describe the extensor pedis.
- 7 Describe the heart.
- 8 Describe the jugular groove and mention *three* important structures found within this groove.
- 9 Describe the spinal cord.
- 10 Mention the 12 pairs of cranial nerves.
- 11 Describe the first pair of cranial nerves.
- 12 Mention the organs of prehension, mastication, insalivation, deglutition and digestion in the ox.
- 13 Describe the hoof. Mention all the important structures situated within the hoof.
- 14 Describe (*a*) the liver of the horse, (*b*) the kidneys of the ox.
- 15 Mention the muscles of the tail.

ANATOMY

Tuesday, January 27, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Describe the anatomic structure of voluntary muscular fiber.
- 2 Mention the bones of the face and describe the inferior maxillary bone.
- 3 Describe the sternum.
- 4 Describe the pelvis.
- 5 Describe the stifle-joint.
- 6 Describe the coffin-joint.
- 7 Describe the panniculus carnosus muscle.
- 8 Mention *six* of the most important muscles of the inferior cervical region, and describe the sternomaxillaris.
- 9 Mention *five* flexor muscles originating in the posterior brachial region, and describe the flexor pedis perforatus.
- 10 Trace the course of the blood from the left ventricle of the heart to the brain, mentioning in order all the important blood-vessels through which the blood passes.
- 11 Trace the course of the blood from the left ventricle of the heart to the left front foot, mentioning in order all the important blood-vessels through which the blood passes.
- 12 Mention the membranes that cover the spinal cord and the brain. Describe the arachnoid.
- 13 Describe the second pair of cranial nerves.
- 14 Trace the course of the urine from the pelvis of the kidneys to the vulva, mentioning in order all the structures through which the urine passes.
- 15 Describe the testicles.

College Department
32d Veterinary ExaminationNo.
Place

ANATOMY

Tuesday, May 19, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Mention the bones of the cranium.
- 2 Describe the scapula.
- 3 Describe the os pedis.
- 4 Mention the bones of the pelvis and describe the sacrum.
- 5 Describe the elbow-joint.
- 6 Describe the stifle-joint.
- 7 Mention in order the organs of prehension, mastication, insalivation and deglutition.
- 8 Describe the stomach.
- 9 Describe the mammary glands of the cow.
- 10 Mention *five* flexor muscles of the metacarpus and phalanges. Describe the flexor pedis perforans.
- 11 Describe the metatarsus.
- 12 Describe the heart.
- 13 Mention all the organs contained in the abdominal cavity.
- 14 Describe the posterior aorta.
- 15 Describe the anterior vena cava.

ANATOMY

Tuesday, June 23, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

1 Mention the bones of the knee.

2 Mention the bones of the posterior extremity and describe the femur.

3 Mention in order, from before backward, all the muscles and their appendages that would be severed in amputating a fore limb just above the knee.

In the questions selected from the following group describe

4 The cranial cavity, mentioning the bones that enter into its formation.

5 The larynx.

6 The heart.

7 The elbow-joint.

8 The suspensory ligament of the fetlock.

9 The udder of the cow.

10 The lymphatic glands.

11 The jugular vein.

12 The pneumogastric nerve.

13 The uterus of the cow.

14 The anterior vena cava.

15 (a) The membrana nictitans, (b) the lacrimal apparatus.

PHYSIOLOGY AND HYGIENE

Tuesday, September 23, 1902 — 1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Mention with regard to the body (a) the principal secreting organs, (b) the excreting organs, (c) the vital organs.
- 2 Explain the source of fats and other solids in cow's milk.
- 3 Mention the functions of respiration.
- 4 State the functions of the liver.
- 5 State the functions of the brain.
- 6 State the functions of the fifth pair of cranial nerves.
- 7 Mention the function of the articular cartilage.
- 8 Mention the functions of the gastric glands.
- 9 State the functions of the phrenic nerves.
- 10 State the functions of the sensitive laminae or podophylous tissue.
- 11 Define digestion, absorption, excretion, anabolism, katabolism.
- 12 Define blood. State in full the composition and the functions of blood.
- 13 Mention the centers in the medulla.
- 14 Define coordination, augmentation, inhibition.
- 15 Describe the decidua vera of the cat and state its function.

PHYSIOLOGY AND HYGIENE

Tuesday, January 27, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Describe ciliated epithelium, stating where it is found and giving its function.
- 2 Describe the placenta and state its functions.
- 3 Give the composition of bone. State how bone is nourished and give the function of long bones.
- 4 Mention the glands in the intestinal canal and state their function.
- 5 Give a short description of connective tissue. State the function of connective tissue.
- 6 State directions to be observed in a case of suspicion of glanders in a horse confined in a stable with a number of other horses. Give treatment.
- 7 Describe in full the functions of the pneumogastric nerve.
- 8 Give a diagrammatic section of a lymphatic gland, including the afferent and efferent vessels.
- 9 Describe the circulation of blood in the kidney.
- 10 Give the chemical composition of bile. State in full the uses of bile.
- 11 Define function, nutrition, absorption, excretion, metabolism.
- 12 State the differential features of digestion in the horse and the ox.
- 13 State in what way milk may become a means of transmitting the germs of typhoid fever.
- 14 Mention the principal secreting organs of the body.
- 15 Give the composition of (a) inspired air, (b) expired air.

PHYSIOLOGY AND HYGIENE

Tuesday, May 19, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Mention the elements composing proteids.
- 2 Mention the inorganic constituents of the animal body.
- 3 Define blood and state its composition.
- 4 Give in full the functions of the pneumogastric nerve.
- 5 Describe the cardiac sounds.
- 6 Give the normal pulse of (a) the horse, (b) the ox, (c) the dog, (d) the sheep, (e) the cat.
- 7 Give the normal temperature of (a) the horse, (b) the ox, (c) the dog, (d) the sheep, (e) the cat.
- 8 Mention the vascular glands.
- 9 Give the normal number of respirations in (a) the horse, (b) the ox, (c) the sheep, (d) the pig, (e) the dog.
- 10 Give in full the function of the lungs. Distinguish between the composition of inspired air and that of expired air.
- 11 Describe the process of digestion.
- 12 Differentiate the stomachs of the horse, ox and pig.
- 13 Give in full the function of the kidneys.
- 14 Mention (a) the excreting glands, (b) the secreting glands.
- 15 Mention the nerve centers found in the brain and medulla oblongata.

College Department

33d Veterinary Examination

PHYSIOLOGY AND HYGIENE

Tuesday, June 23, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Explain *three* ways in which waste matter is excreted from the body.
- 2 Mention the organs of (a) secretion, (b) excretion.
- 3 Mention the keratogenous tissues of the foot, giving the function of each.
- 4 Define physiologic shoeing.
- 5 Define mammary secretions, giving a full account of the sources of the fats and other solids in milk.
- 6 What is the source of the energy manifested in the animal body?
- 7 What *three* sorts of impressions are obtained through the cutaneous nerves?
- 8 State the functions of the placenta.
- 9 Mention the proteids of the blood. Describe a red blood-corpuscle, giving its function.
- 10 Mention the three classes of sympathetic nerve ganglia, giving the function of each.
- 11 Show by diagram the structure of the kidneys. State the function of the kidneys.
- 12 Define automatism, augmentation, inhibition, coordination, conduction.
- 13 Differentiate mucous membrane and serous membrane. State where each is found and give the function of each.
- 14 State the function of the corpora nigra (pigmentary bodies of the iris).
- 15 Mention the vital organs of the body.

College Department

Place

30th Veterinary Examination

CHEMISTRY

Wednesday, September 24, 1902—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

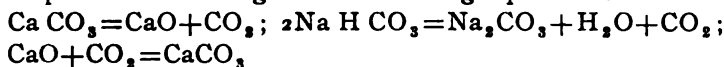
1 Describe the properties and state the use of the substance formed when hydrogen and oxygen are united in equal volumes.

2 Define atom, molecule.

3 By what means may the compound character of substances be proved?

4 Distinguish between (a) a nitrite and a nitrate, (b) a sulfite and a sulfate.

5 Explain the meaning of the following equations:



6 State the function that oxygen performs in (a) ordinary combustion, (b) the process of respiration in air-breathing and in water-breathing animals.

7 How much oxygen by volume can be obtained from *five* liters of ozone the temperature and pressure remaining constant?

8 State the physical and the chemical characteristics of nitrous oxid. Describe the effects of nitrous oxid on the system.

9 What is marsh gas? In what proportions must marsh gas and oxygen be mixed in order to produce an explosive mixture containing no excess of either gas?

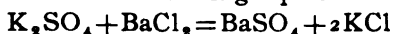
10 How is chlorin gas prepared? Give the physical and the chemical characteristics of chlorin gas.

11 Give the formula of carbonic oxid. Mention *one* method of preparing carbonic oxid. Write the reaction.

12 What is meant by hardness in water? Under what conditions and how may hard water be made soft?

13 What is (a) gypsum, (b) plaster of Paris?

14 What is meant by (a) molecular weight, (b) atomic weight? Represent the following equation in weight:



15 How does iron occur in nature? Distinguish chemically and physically between cast iron and wrought iron.

College Department
31st Veterinary Examination

No.

Place

CHEMISTRY

Wednesday, January 28, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Define molecule, acid, salt, hydrate.
- 2 Mention 10 of the most important metallic elements and give the symbol of each.
- 3 Give the graphic formula of (a) sulfuric acid, (b) water, (c) ammonia, (d) marsh gas.
- 4 Compare the physical and the chemical properties of ozone with those of ordinary oxygen.
- 5 State the law of definite chemical proportions as applicable to synthesis.
- 6 How does chlorine occur in nature? State how hydrochloric acid may be prepared from common salt and give the equation.
- 7 What is the difference between a nitrite and a nitrate? What is the formula of nitrate of soda?
- 8 Give *one* method of preparing carbonic oxid. Give the equation.
- 9 State the physical and the chemical properties of carbon. Describe *two* allotropic forms of carbon.
- 10 To what class of organic compounds does glycerin belong? From what source is glycerin obtained?
- 11 What is soap? Describe the preparation of soap.
- 12 What are the properties of aldehydes?
- 13 What are carbohydrates? Mention *three* general groups of carbohydrates.
- 14 What is petroleum? Give the source, the properties and the uses of petroleum.
- 15 Mention some of the coal-tar products used in medicine.

College Department

No.

32d Veterinary Examination

Place

CHEMISTRY

Wednesday, May 20, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Mention *five* constituents of ordinary air.
- 2 Compare O and N as to physical and chemical properties.
- 3 If 2 liters of N and 1 liter of O are combined, what will be the name and the volume of the product?
- 4 Find how many grams of H may be released from HCl by 260 grams of Zn. How many grams of HCl are necessary? [Atomic weight of Zn=65, of Cl=35.5.]
- 5 Explain the formation of stalactites.
- 6 Define gypsum and write its chemical formula. State what takes place when heat is applied to gypsum and give the common name of the solid product left.
- 7 Find how many grams of KClO_3 must be used to prepare $55\frac{1}{2}$ liters of O. [Atomic weight of K=39; 1 g. of O=.6975 l.]
- 8 Mention the compounds symbolized as follows: FeBr_2 ; Fe_2Br_6 ; $\text{K}_6\text{Fe}_2(\text{CN})_{12}$; $\text{Fe}_2(\text{SO}_4)_3$.
- 9 Write the graphic formula of K_2MnO_4 .
- 10 Describe a method of preparing a solution of HCl.
- 11 Give proof of the fact that a diamond is composed of carbon.
- 12 Complete the following equation: $2 \text{NH}_4\text{Cl} + \text{H}_2\text{SO}_4 = (\text{NH}_4)_2\text{SO}_4 + \dots$
- 13 State Ampère's law.
- 14 Define microcrith.
- 15 Compare wine and brandy in respect to composition.

College Department

33d Veterinary Examination

No.

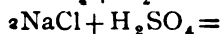
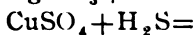
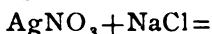
Place

CHEMISTRY

Wednesday, June 24, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered.

- 1 Define element, acid, salt, hydrate.
- 2 What is (a) dialysis, (b) fusion, (c) distillation?
- 3 State the physical and the chemical properties of oxygen. Describe the preparation of oxygen.
- 4 Give the composition of air. State the changes that occur in air breathed by animals.
- 5 What is (a) an oxidizing agent, (b) a reducing agent?
- 6 Mention the metals of the sodium group. Describe the process of manufacturing sodium carbonate.
- 7 What is meant by the molecular weight of a substance?
- 8 What is peroxid of hydrogen? Describe the chemical characteristics of peroxid of hydrogen.
- 9 How does sulfur occur in nature? Describe a method of obtaining pure sulfur. State the action of heat on sulfur
- 10 How should the contents of a stomach be examined for the presence of arsenic? Describe in detail.
- 11 Calculate the weight of carbonic acid gas that can be obtained from one pound of marble. Give equation. [Atomic weight of Ca=40, of O=16, of C=12.]
- 12 What is an alloy? Mention *three* alloys.
- 13 What is a carbohydrate? Mention carbohydrates that are common food for horses and cattle.
- 14 Describe a process for determining the per cent of butter fat in a specimen of milk.
- 15 Complete the following equations:



College Department

No.

30th Veterinary Examination

Place

SURGERY

Wednesday, September 24, 1902 — 1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

1 Describe the appearance of the mouth of a horse at the age of (a) 3 years, (b) 5 years, (c) 7 years, (d) 14 years.

2 What peculiar conformation of the hind limbs predisposes to the development of thorough-pins, bog-spavin and bursal enlargement about the fetlock?

3 Mention *four* diseases and *six* accidental conditions or injuries that are characterized by a copious discharge of saliva.

4 Mention 10 diseases of the foot which may produce lameness, and specify those met with most frequently.

5 Differentiate the symptoms of glanders, chronic nasal catarrh and distemper.

6 Describe the symptoms of canine distemper.

7 Describe the causes, symptoms and treatment of purulent collections in the superior maxillary sinuses or in the frontal sinuses.

8 Give the etiology, pathology and symptoms of acute laminitis.

9 Mention *five* diseases for the relief of which the operation of plantar neurectomy might be indicated.

10 Mention *five* diseases for the relief of which the operation of median neurectomy might be indicated.

11 Describe the symptoms and treatment of luxation of the patella.

12 Describe the process of the healing of wounds.

13 Describe the symptoms and treatment of acute laryngitis.

14 Describe the symptoms of osteoporosis.

15 Describe the symptoms of actinomycosis in cattle.

College Department

31st Veterinary Examination

No.

Place

SURGERY

Wednesday, January 28, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Give the causes, symptoms and treatment of actinomycosis in cattle.
- 2 Give the history, symptoms and treatment of foot-and-mouth disease in cattle.
- 3 Give the causes, symptoms and treatment of influenza.
- 4 Give the causes, symptoms and treatment of purpura hemorrhagica.
- 5 Give the causes, symptoms and treatment of canine distemper.
- 6 Differentiate eczema and mange in dogs and describe the symptoms of each.
- 7 Describe the operation of median neurectomy.
- 8 Describe the operation for the relief of stringhalt.
- 9 Give the causes, symptoms, treatment and termination of bone-spavin.
- 10 Describe the process of the healing of wounds.
- 11 Describe the symptoms, treatment and termination of periodic ophthalmia.
- 12 Describe the appearance of the mouth of a horse at the age of (a) 2 years, (b) 4 years, (c) 6 years, (d) 8 years.
- 13 Differentiate nasal gleet and glanders. Give the symptoms of each.
- 14 Give the causes, symptoms and treatment of poll-evil.
- 15 Describe the symptoms and treatment of rupture of the flexor metatarsi muscle or of its tendons.

College Department

No.

32d Veterinary Examination

Place

SURGERY**Wednesday, May 20, 1903—1.15 to 4.15 p. m., only**

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Give the causes, symptoms and treatment of osteoporosis.
- 2 Give the causes, symptoms and treatment of strangles.
- 3 Give the causes, symptoms and treatment of azoturia.
- 4 Describe the appearance of the mouth of a horse 4 years old.
- 5 Mention the varieties of fractures.
- 6 Give the symptoms, prognosis and treatment of fracture of the tuberosity of the ischium.
- 7 Give the cause, symptoms and treatment of luxation of the patella.
- 8 Give the causes, symptoms and treatment of quitter.
- 9 Give the causes, symptoms and treatment of mammitis in the cow.
- 10 Differentiate acute pharyngitis, paralysis of the pharynx and choking. Give the symptoms of each.
- 11 State the indications for the operation of median neurectomy. Describe the operation.
- 12 State the indications for the operation of phlebotomy of the jugular vein. Describe the operation.
- 13 Differentiate acute laminitis, chronic laminitis and periostitis of the pedal bone. Give the symptoms of each.
- 14 Describe the symptoms of incomplete rupture of the flexor pedis perforans tendon at its point of insertion.
- 15 Give the causes, symptoms and treatment of actinomycosis in cattle.

College Department
33d Veterinary Examination

No.

Place

SURGERY

Wednesday, June 24, 1903—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 What is an aneurism?
- 2 Give the causes and symptoms of hydrothorax and describe operation for its relief.
- 3 Mention indications for the operation of trephining the maxillary sinuses. Describe the operation.
- 4 Give causes, symptoms and treatment of paralysis of the bladder in the horse and in the dog.
- 5 Give the causes, symptoms and treatment of acute catarrhal conjunctivitis.
- 6 Differentiate entropion and ectropion and give the symptoms and treatment of each.
- 7 Give causes, symptoms and treatment of navicular disease.
- 8 State the various methods of dehorning cattle. What method do you consider best and why? What after treatment should you recommend?
- 9 Give causes, symptoms and treatment of ascites in dogs.
- 10 What is stringhalt? Describe the operation for the relief of stringhalt.
- 11 Describe the symptoms and treatment of cold abscess of the shoulder.
- 12 Give the causes, symptoms and treatment of acute laminitis.
- 13 Mention five varieties of hernia and describe the symptoms and treatment of scrotal hernia.
- 14 Give the pathology, symptoms and treatment of side-bone.
- 15 Give the causes, symptoms and treatment of quarter crack.

College Department

No.

30th Veterinary Examination

Place

OBSTETRICS

Thursday, September 25, 1902 — 9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Give the normal temperature of domestic animals.
- 2 Define obstetrics, eutocia, embryology.
- 3 State the natural presentations of the fetus in the parturition of animals.
- 4 State the effects of in-and-in breeding on the constitution.
- 5 Which is more fatal, injury to the uterus of the mare or injury to the uterus of the cow?
- 6 Give the period of gestation in the mare, the cow and the bitch.
- 7 Give the blood and nerve supply of the uterus.
- 8 Describe the urogenital organs of the cow.
- 9 Mention *three* diseases of the pelvic bones that may prevent the passage of the fetus.
- 10 Give the functions of the placenta.
- 11 Give the causes and treatment of septicemia after parturition.
- 12 State *five* causes of retarded expulsion of the fetus in the cow.
- 13 State the changes that take place in the mammary glands during gestation.
- 14 Describe the vertebrosacral position of the fetus.
- 15 State the conditions under which the passage of the fetus is unobstructed.

College Department
31st Veterinary Examination

No.

Place

OBSTETRICS

Thursday, January 29, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Give the cause and treatment of inversion of the uterus.
- 2 Mention the signs of approaching parturition in the mare.
- 3 Give method of detecting abnormal positions of the fetus.
- 4 Mention the most favorable and the most frequent presentation of the fetus in domestic animals.
- 5 Is the vagina strictly a generative organ? Explain.
- 6 Give the causes, symptoms and treatment of umbilic hernia.
- 7 Describe the fetal circulation.
- 8 Mention the causes of sterility in the mare.
- 9 Describe the mammary glands and show how those of the mare, the cow and the bitch differ.
- 10 Describe the ovaries of the mare.
- 11 Give the diagnosis and treatment of hydrometra.
- 12 Mention *four* accidents that may follow parturition.
- 13 Describe the lumbosacral position of the fetus.
- 14 In what way does the blood return to the placenta to be nourished and oxygenated?
- 15 Describe the liquor amnii and give its functions.

College Department

No.

32d Veterinary Examination

Place

OBSTETRICS

Thursday, May 21, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Give the symptoms and treatment of hydrocephalus.
- 2 Give the pathology and treatment of parturient apoplexy.
- 3 State the difference between the ovaries of the cow and those of the mare and mention the diseases with which the ovaries are affected.
- 4 Mention the diseases in the mare for which ovariectomy should be performed.
- 5 Mention the principal causes and give the treatment of sterility.
- 6 Give the causes and treatment of inversion of the vagina before parturition.
- 7 Mention the signs of pregnancy in the cow and the mare.
- 8 Mention the shortest period of gestation in which a calf can be born alive.
- 9 Describe the uterus of the bitch and state how it differs from that of the sow.
- 10 State the signs of parturition in domestic animals.
- 11 Mention the dangers associated with retention of the fetal membranes.
- 12 Mention *five* abnormal presentations of the fetus.
- 13 Define embryology.
- 14 Give dimensions of the pelvis of the mare.
- 15 Give the causes, prognosis and treatment of torsion of the uterus.

College Department
33d Veterinary Examination

No.

Place

OBSTETRICS

Thursday, June 25, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Give the causes, prognosis and treatment of metropéritonitis.
- 2 Describe the mammary glands of the cow.
- 3 Give the causes and treatment of mammitis.
- 4 Give the specific gravity and the constituents of cow's milk.
- 5 Write a prescription for agalactia in the mare.
- 6 Give the causes and treatment of umbilic hemorrhage.
- 7 State the indications for surgical treatment in parturition
- 8 Mention *three* ways by which artificial abortion may be produced and state the dangers associated with it.
- 9 Give the causes of uterine inertia. State how such a condition should be treated.
- 10 Give the causes and treatment of hematoma of the vagina.
- 11 Define endometritis and give its causes, varieties and treatment.
- 12 How may rupture of the uterus during labor be recognized?
- 13 Give a brief description of the physiology of fecundation
- 14 Give the causes, symptoms and treatment of parturient laminitis.
- 15 What is menstruation?

College Department
30th Veterinary Examination

Place

PATHOLOGY, DIAGNOSIS AND PRACTICE

Thursday, September 25, 1902—1.15 to 4.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Give the causes, symptoms and treatment of tympany in cattle.
- 2 Give the diagnostic symptoms of acute pharyngitis and laryngitis.
- 3 Mention *two* common nematodes that infest sheep. Give life history, prevention and treatment.
- 4 Describe rabies in the dog. How may a positive diagnosis of rabies be made?
- 5 Give the causes and symptoms of ruptured stomach. What is the usual seat of the lesion?
- 6 Give the causes, symptoms and treatment of simple ophthalmia. Differentiate simple ophthalmia and specific ophthalmia.
- 7 Give the causes, symptoms and treatment of polyuria.
- 8 Give the causes, symptoms and treatment of verminous colic.
- 9 Mention the domestic animals in the order of their susceptibility to suppuration.
- 10 Mention the symptoms that indicate trichinosis in swine. Give prevention and treatment.
- 11 Give the cause, symptoms and treatment of actinomycosis.
- 12 Give the causes, symptoms and treatment of osteoporosis.
- 13 State the cause and symptoms of traumatic pericarditis in the cow.
- 14 Mention the different forms of ergotism in cattle. Give the symptoms of each form mentioned and state the location of the lesions in each.
- 15 Give the cause, symptoms and treatment of verminous bronchitis in calves.

College Department

31st Veterinary Examination

Place

PATHOLOGY, DIAGNOSIS AND PRACTICE**Thursday, January 29, 1903—1.15 to 4.15 p. m., only**

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Mention the symptoms that indicate trichinosis in swine. Give prevention and treatment.
- 2 Give the causes, symptoms and treatment of acute laminitis.
- 3 Give the causes, symptoms and treatment of gapes in fowls.
- 4 What are the causes of urinary calculus? State where urinary calculi are found.
- 5 What measures should be adopted to eradicate glanders from a stable of horses?
- 6 What tapeworms affect the liver of sheep? Give the symptoms and treatment.
- 7 Give the causes, symptoms, prevention and treatment of an epizootic of scours in young calves.
- 8 Give the treatment of a case of fistulous withers of three months standing.
- 9 Give the pathology of acute gastric indigestion.
- 10 Give the auscultatory sounds of pleurisy in each of its successive stages.
- 11 Give the pathology and treatment of tympany in the ox.
- 12 Give the diagnostic symptoms and the treatment of pure spasmodic colic.
- 13 Mention the common causes of roaring. Describe the structural changes in the nervous and muscular tissues in a case of roaring.
- 14 What conditions give rise to cataract? Give the diagnosis and treatment of cataract.
- 15 Give the common causes, symptoms and treatment of jaundice in cattle.

PATHOLOGY, DIAGNOSIS AND PRACTICE**Thursday, May 21, 1903—1.15 to 4.15 p. m., only**

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

1 How should a case of fistulous withers of three months standing be treated?

2 What animals are specially liable to traumatic lesions of the heart? Give the symptoms and treatment.

3 Give the causes, symptoms and treatment of distomiasis (liver rot) in sheep.

4 Distinguish between the movement of a limb with shoulder lameness and one with lameness below the knee. Give the characteristic symptoms of shoulder lameness.

5 What domestic animal is most subject to bronchial asthma? Give the causes, symptoms, prevention and treatment of bronchial asthma.

6 Mention the parasites causing acariasis in sheep. State the habits of these parasites. Give the prevention and treatment of acariasis.

7 Describe the method of testing suspected tuberculosis in a herd of cattle. State the precautions to be observed.

8 Give the diagnosis and treatment of tympanites of the cecum and double colon.

9 What animals suffer from contagious ophthalmia? Give the diagnosis and treatment of contagious ophthalmia.

10 State the effects of overfeeding cattle and swine with cotton-seed or cotton-seed meal.

11 What worms infest the stomach, the small intestine and the large intestine respectively?

12 What lesions and conditions would indicate that an animal had been killed by lightning?

13 Give the causes, prevention and treatment of blue and viscid milk.

14 Give the diagnostic symptoms and the treatment of rheumatism.

15 State the causes and symptoms of rabies in the dog. How may a positive diagnosis be made? Describe fully.

PATHOLOGY, DIAGNOSIS AND PRACTICE**Thursday, June 25, 1903—1.15 to 4.15 p. m., only**

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Define pathology.
- 2 Define tumor. Mention several kinds of tumors and describe *two* of the kinds mentioned.
- 3 Define inflammation.
- 4 Give the four cardinal symptoms of acute glanders. Mention diseases for which glanders may be mistaken.
- 5 If you were called on to treat a case of glanders what procedure would you recommend and how would you handle the case?
- 6 Make a differential diagnosis of pneumonia, pleurisy and bronchitis.
- 7 Give the sounds heard on auscultation and percussion in the three stages of pneumonia. How does pneumonia terminate?
- 8 What is embolism? Make a diagnosis of embolism of the external iliac artery.
- 9 Give the pathology of melanosis and mention the animal that is most liable to be affected by it. On what parts of the body does melanosis usually occur?
- 10 Give the pathology, diagnosis and treatment of osteoporosis.
- 11 Describe (a) atrophy, (b) hypertrophy. Give the causes of each of these conditions.
- 12 Describe the symptoms of rabies in dogs, horses and cattle.
- 13 Describe a well marked case of influenza occurring in a large stable, giving the etiology and detailed treatment, with prescriptions.
- 14 Give the etiology, symptoms, various manifestations and treatment of tetanus.
- 15 Define hoof and state what animals are affected by it. Give the cause, prognosis and treatment of hoof.

College Department

No.

30th Veterinary Examination

Place

THERAPEUTICS AND MATERIA MEDICA

Friday, September 26, 1902—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

1 Mention *five* cathartics, give the class of cathartics to which each belongs, and state the dose of each for the horse, the cow and the dog.

2 Describe acetanilid and give its derivation and uses.

3 What is camphor? Describe the physiologic action and state the medicinal uses of camphor.

4 Write a prescription for a horse and a cow suffering from flatulent colic.

5 From what and where is cantharides obtained? How may powdered cantharides be distinguished from powdered licorice? What proportions of cantharides enter into blistering ointment?

6 State with regard to digitalis (*a*) chief indications for its use, (*b*) method of combating an overdose, (*c*) dose of the fluid extract. Why should special care be exercised in prescribing digitalis?

7 Write a prescription for a horse suffering from iritis.

8 State with regard to nitrite of amyl (*a*) actions, (*b*) uses, (*c*) dose for the dog.

9 State the general indications for the use of the actual cautery. When is the actual cautery contraindicated? State directions for the subsequent management of the animal and of the parts cauterized.

10 Write a prescription for the treatment of diabetes insipidus.

11 What is gamboge? State the actions and uses of gamboge.

12 What medicine should be used to (*a*) contract the pupil of the eye, (*b*) dilate the pupil of the eye?

13 Mention the chief indications for the use of belladonna. Give *four* preparations of belladonna.

14 Mention *two* cardiac stimulants and state the dose of each.

15 Write a prescription for a dog suffering from eczema rubrum.

THERAPEUTICS AND MATERIA MEDICA

Friday, January 30, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 What is an ecbohic? Mention *three* ecbohics.
- 2 State the general indications for the use of counter-irritants. When are counter-irritants contraindicated? Mention *three* varieties of irritants.
- 3 State the indications for the use of atropin in diseases of the eye.
- 4 What is the common name of rhamni succus? State the uses of rhamni succus.
- 5 State with regard to the Calabar bean (*a*) its actions and uses, (*b*) alkaloid obtained from it, (*c*) effect of the alkaloid on the pupil of the eye.
- 6 State the general indications for the use of diuretics. Mention *four* vegetable diuretics and state the dose of each for the horse, the cow and the dog.
- 7 What medicine is indicated in (*a*) fatty degeneration of the heart, (*b*) palpitation of the heart?
- 8 Write a prescription for diarrhea in a calf four weeks old.
- 9 What are the chief indications for the use of iodin internally? In what form should iodin be administered internally?
- 10 State the actions of jaborandi.
- 11 Write a prescription for the treatment of conjunctivitis.
- 12 Write a prescription for a horse suffering from iritis.
- 13 State with regard to croton oil (*a*) actions, (*b*) uses, (*c*) dose for the cow.
- 14 State the actions and uses of digitalis.
- 15 Describe the preparation of tuberculin.

THERAPEUTICS AND MATERIA MEDICA

Friday, May 22, 1903—9.15 a. m. to 12.15 p. m., only

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 Describe an infusion.
- 2 Describe a decoction.
- 3 Describe a tincture.
- 4 Describe an extract.
- 5 How is creosote obtained? Give its medicinal uses and state the dose for the horse and the dog.
- 6 What medicines should be prescribed in a case of chronic lead-poisoning?
- 7 Write a prescription for a physic ball suitable for a horse weighing 1000 lbs. How soon should it operate?
- 8 How is diluted medicinal nitrohydrochloric acid prepared?
- 9 State the medicinal uses of prussic acid.
- 10 What is meant when a medicinal agent is said to be cumulative? Give an example. In using cumulative agents in a course of treatment, what precautions should be adopted?
- 11 State the medicinal uses of creolin.
- 12 What medicines should be given to a horse suffering from diabetes insipidus?
- 13 What is tuberculin? How is tuberculin obtained?
- 14 What is (a) proof-spirit, (b) absolute alcohol?
- 15 Mention your favorite antiseptic for the healing of wounds.

THERAPEUTICS AND MATERIA MEDICA**Friday, June 26, 1903—9.15 a. m. to 12.15 p. m., only**

Answer any 10 of the questions on this paper but no more. Check the number (✓) of each one of the questions you have answered. Unless otherwise stated all questions relate to the horse.

- 1 State what is meant by *each* of the following terms and give *two* examples of each: stimulant, alterative, sedative, tonic.
- 2 Give in the metric system (*a*) the table of weight, (*b*) the unit of measure of capacity, (*c*) the unit of linear measure.
- 3 Mention *four* preparations of antimony, giving a short description of each.
- 4 Mention the natural order to which belladonna belongs and give its natural habitat. Write a short description of the plant.
- 5 What is chloral? State with regard to chloral (*a*) actions, (*b*) uses, (*c*) dose for the horse and the dog.
- 6 Give the common name of colchicum. State the actions, the uses and the dose of colchicum.
- 7 What is henbane? Give its active principle and state its action as a poison.
- 8 Mention the preparations of lead.
- 9 Mention the preparations of mercury.
- 10 Write a prescription for anemia.
- 11 Write a prescription for ascites in a fox terrier.
- 12 Give methods of disinfecting cattle cars that have carried animals affected with foot-and-mouth disease, mentioning the disinfectants that should be used.
- 13 Mention *three* mineral acids. State with regard to each (*a*) uses in medicine, (*b*) dose.
- 14 Give the actions and uses of sulfur.
- 15 Write a prescription for mammitis in the cow.

College Department

13TH ACCOUNTANT EXAMINATION

THEORY OF ACCOUNTS

Tuesday, January 27, 1903—9.15 a. m. to 12.15 p. m., only

"The Regents of the University shall make rules for the examination of persons applying for certificates under this act, and may appoint a board of three examiners for the purpose . . ."

Laws of 1896, ch. 312, § 2

Answer 10 questions but no more. Answers in excess of the number required will not be considered. Do not repeat questions but write answers only, designating by number as in question paper. Check the number (✓) of each one of the questions you have answered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Outline *three* different forms of ledger ruling, each differing from the standard form. Mention the points of superiority over the common form of each of the three special forms, for the purpose intended.

2 Write from memory the form of a bond coupon. For what purpose are such coupons employed and how are they used? Describe a plan for the care of paid coupons and give reasons for the use of such a plan.

3 What is a contingent liability? Give *three* examples. For what purpose and in what form should such liabilities appear in a financial statement?

4 Define the following terms as relating to municipal corporations, and outline transactions that would necessitate debits and credits in each case: (a) appropriation accounts, (b) assessment accounts, (c) bond accounts, (d) trust funds.

5 Distinguish between artificial profits and real profits. Give examples of each.

6 What are secret reserves? Show at least two instances, illustrating the reasons for their creation and the methods of establishing them.

7 An inventory of a going concern, taken under your supervision and direction and requiring two weeks to complete, is commenced one week prior to the close of the fiscal period under review. How would you instruct, as to (a) the general care and custody of stock under inventory, (b) the recording of incoming and outgoing goods during stock-taking?

8 Describe a method of recording periodically the losses of a corporation with a view to preventing the payment of dividends till profits subsequently earned make dividends legal.

9 In valuing for inventory should such items as rent, interest, insurance, salaries and expenses of management ever be included, and if so under what circumstances?

10 In determining who are entitled to participate in dividends of a corporation, what general rule governs? To what dividends is a purchaser of shares entitled?

11 Distinguish between fixed capital and floating or circulating capital. Give illustrations of each.

12 A wholesale grocery house has several outdoor salesmen, both in and out of the city, who are paid commissions on their sales. What are the danger points to be noted, and how would you arrange the books and accounts to protect your client against the payment of commissions not earned?

13 Describe what is known as the voucher system of book-keeping and state some features of this system which in your opinion make it desirable.

14 Is depreciation of plant a legitimate element of the cost of goods produced? Explain the method employed to keep plant in efficient condition out of earnings.

15 Draw up a form of self-proving pay-roll which will provide for the determination of the exact number of bills and pieces of currency required for its liquidation. Show wherein such a pay-roll is convenient and efficient.

College Department

14TH ACCOUNTANT EXAMINATION

THEORY OF ACCOUNTS

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1 Contrast the daybook, journal and ledger method of book-keeping with some more modern method. Describe the limitations of the first mentioned method and show to what extent, in what manner and for what reason it has been superseded or modified in modern accounting practice.

2 Define and differentiate the terms account and fund.

3 In what respects and for what reason do the books of account of a commission merchant differ from those kept by an importer?

4 Outline entries necessary to record on the books of the consignee all the transactions incident to a consignment.

5 On what theory is the doctrine of equilibrium in book-keeping founded? Explain.

6 What great method of expressing accounting results has been evolved out of the doctrine of equilibrium?

7 Compare a simple arrangement of accounts, as for example, capital, cash, merchandise, personal, expense, profit and loss, with some other scheme of accounts expanded to meet the demands of present day requirements. Describe the possibilities and advantages of the more modern scheme.

8 At the close of a fiscal period how are consigned goods treated on the ledger and balance sheet of (a) the consignor, (b) the consignee?

9 Define and differentiate executor, administrator, trustee.

10 Define reserve fund, sinking fund. Show how and for what purposes these are created, wherein they differ and how each is treated in the balance sheet.



11 What difference of treatment should be accorded to plant renewal and replacement and plant repair?

12 You are retained to open books for the executor of A. B. deceased. Mention the books that you would procure and the accounts that you would ordinarily open. State from what documents you would get the information on which to found book entries.

13 What are cost accounts? How were costs ascertained prior to the use of cost accounts? Show the advantages of the modern method.

14 A company leases for a term of 50 years certain unimproved property for factory purposes, paying a ground rent therefor of \$1,000 a year. The company erects certain buildings at a cost of \$40,000, which are to pass to the owner of the fee at the termination of the lease. Without going into the mathematics of the matter, state how you would treat this proposition in the books of account.

15 A municipality sells improvement bonds, the proceeds forming a fund out of which is defrayed the cost of certain improvements, the total expense of these improvements being assessed on the property benefited. Bond redemptions are to be made out of assessments collected. What accounts would be required for recording the foregoing transaction, and for what items would these accounts be debited or credited?

College Department

13TH ACCOUNTANT EXAMINATION

PRACTICAL ACCOUNTING

Tuesday, January 27, 1903—1.15 to 5.15 p. m., only

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1 From the following trial balance of the Excelsior Ribbon Co., prepare income and profit and loss accounts for the six months ending June 30, 1902, and balance sheet for that date:

Capital stock		
Preferred, 250 shares @ \$100.		\$25,000
Common, 300 " " "		30,000
Machinery.....	\$24,500	
Inventory, Dec. 31, 1901.....	78,620 15	
Accounts receivable.....	63,428 30	
Materials purchased		
Silk (raw, spun and thrown).....	124,326 80	
Ribbon paper, boxes, labels etc.....	3,728 05	
Labor		
Weaving.....	29,384 07	
Throwing.....	10,976 25	
Dyeing.....	8,563 43	
Warping, winding etc.....	15,721 18	
Fixing and preparing looms.....	1,270 60	
Sales of ribbon, less returns		265,123 74
Sales, miscellaneous.....		2,507 26
Discounts on purchases.....		120 56
Profit and loss—surplus—Dec. 31, 1901		23,528 74
General expenses		
Salaries, officers and clerks.....	5,238 75	
Engineers etc.....	2,068 17	
Rent of mill.....	2,500	
Commissions.....	17,856 50	
Fuel, lighting etc.....	2,370 60	
Other expenses (including ins. \$285)	7,650 39	
Bills payable.....		57,235 95
Interest on bills payable.....	1,586 36	
Accounts payable.. ..		6,875 95
Cash in bank.....	9,876 25	
Cash in safe.....	726 35	
	<u>\$410,392 20</u>	<u>\$410,392 20</u>

In your statements provide for the following: dividends declared at the rate of $3\frac{1}{2}\%$ on preferred stock and 3% on common stock; depreciation on machinery 15% ; prepaid insurance \$48.25; labor accrued but not due (estimated) \$1,850; taxes accrued but not due (estimated) \$250; inventory, June 30, 1902, \$96,385.50.

2 Three manufacturers, each having an independent business and wishing to effect a consolidation of their respective interests, organize The United States Manufacturing Corporation, with an authorized capital stock of \$1,500,000, consisting of 7,500 shares of preferred stock and 7,500 shares of common stock of \$100 each. They sell to the new company all of their real estate, buildings, machinery, tools, fixtures, merchandise and supplies, in consideration of \$1,500,000, and agree to accept in payment \$750,000 of preferred and \$750,000 of common stock of The United States Manufacturing Corporation at par. The vendors donate to the treasury of the company \$150,000 of preferred stock and \$150,000 of common stock to provide for working capital. The company sells \$100,000 of its preferred stock in the treasury for 80% cash, giving a bonus to the purchaser of 20% in common stock.

For the purpose of raising additional funds for improvements and additions to plant, the company mortgages its real estate and buildings, as security for an issue of bonds amounting to \$250,000. These bonds the company sells to bankers at 90% , giving as a bonus 10% of preferred stock and 20% of common stock.

Draft entries to express correctly the above transactions on the books of the corporation, and prepare a statement of assets and liabilities of the company.

3 The A. B. Banking Co. of New York borrows £20,000 from C. D. & Co., London, for 60 days at 4% , money being at 6% in New York. The rate of exchange is $4.87\frac{1}{2}$ when the loan is made and $4.88\frac{1}{2}$ when it is repaid. If brokerage is $\frac{1}{4}\%$, cable charges \$15, how much is saved or lost by borrowing abroad? (Interest on basis of 360 days to the year.)

4 By the will of Henry Palmer, deceased, specific bequests were made to three of his children, viz: William \$100,000, Mary \$75,000 and Emma \$75,000. A sum of \$20,000 was bequeathed to charitable institutions and his eldest son, Henry,



was named as residuary legatee. In accordance with the terms of the will all real estate was sold, the amount realized being \$75,000. The inventory filed by John Jacobs, executor, was as follows: bonds and stocks \$87,500, bonds secured by mortgages \$135,000, furniture and other household effects \$2,750, cash in bank \$1,237.50.

On an accounting the executor's books showed disbursements as follows: undertaker's bill and other funeral expenses \$675; probate of will, legal expenses, publishing citations etc. \$14,278.75; debts of testator \$10,875.25; stationery, postage etc. \$118.75; improvements on real estate \$750.50; repairs on real estate \$4,860.75; taxes and insurance \$17,505; care of cemetery lot \$350; services of accountant \$1,800; cost of executor's bond \$1,400. Receipts were as follows: sale of bonds and stocks \$86,327; bonds and mortgages paid \$98,915; sale of furniture etc. \$2,285.75; interest on bonds and mortgages \$61,270.50; interest on deposits with trust companies \$1,275.45; rents \$17,250; dividends on bonds and stocks \$37,918.50.

The inventory at the date of accounting showed bonds and stocks \$18,755, bonds and mortgages \$30,375, and cash in accordance with the foregoing transactions, including satisfaction of the specific bequests of the will.

Prepare, with due distinction as to principal and income, a summary statement of the executor's account, showing the amount of the executor's commission and the amount due the residuary legatee.

5 One of the early experiences of the firm of Gardner & Kestin, Certified Public Accountants, was to make an investigation of the books and accounts of Evans, Smart & Byford (which firm had become involved in business difficulties and was compelled to stop payment) and to prepare from the following data a statement of affairs, accompanied by a deficiency account:

Unsecured creditors, A \$35,000, B \$27,500, C \$26,000, D \$24,500, E \$17,500, F \$15,000 and G \$2,000; creditors for rent, salaries etc. \$1,250, of which \$750 was preferential; debtors \$42,500, of which \$37,500 was good, \$1,825 doubtful (estimated to produce \$625) and \$3,125 bad; bills receivable, H \$3,000, J \$4,250, K \$2,500 and L \$1,500; land and buildings \$25,000, plant and machinery \$8,500, stock on hand \$5,000, furniture and fixtures \$1,500, cash on hand \$15,000, sundry profits \$37,500, sundry losses \$30,000, trading expenses \$17,500.



Evans's capital account was \$5,000, Smart's \$3,750, Byford's \$3,750; Evans's drawings were \$10,000, Smart's \$15,000, Byford's \$17,500.

Show how you would have prepared the statements required had you been employed to do the work.

6 A and B of Colorado engaged as equal partners in a stock-raising enterprise with a capital of \$10,000, each contributing one half.

A received a salary of \$200 per month.

At the end of three years they decided to terminate the business, and B, who handled all the moneys of the copartnership and kept the books, reported the following receipts and payments:

RECEIPTS

A's investment	\$5,000
B's investment	5,000
Sales of cattle.....	80,359
Loans	15,000

PAYMENTS

Purchases of cattle	\$57,000
Loans repaid.....	14,000
A's salary.....	4,200
Interest	1,000
Expenses.....	9,000
A's withdrawals.....	2,200
B's withdrawals.....	1,800

A round-up and branding of the herd showed the following inventory: 30 heifers @ \$20, 38 steers @ \$30, 75 cows @ \$20, 10 bulls @ \$60, 75 yearlings @ \$12, 100 calves @ \$8.

There remained with bankers a balance of \$16,150, and other assets were as follows: horses \$800, tools etc. \$100, supplies \$150, accounts receivable \$750.

The firm owed the following bills: branding irons \$40, salt \$100, loan at bank \$1,000, unpaid wages \$260.

You are required to prepare such statements as are necessary to show (a) the financial condition of the copartnership at its termination, (b) the results of the three years' operations, (c) the interest of each partner.

College Department

14TH ACCOUNTANT EXAMINATION

PRACTICAL ACCOUNTING

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1 Messrs Sharp & Flat, partners, engaged in manufacturing, decide to form a business corporation under the laws of New York, under the name of The Sharp & Flat Manufacturing Company, having an authorized capital of \$100,000. The corporation, in consideration of the entire issue of capital stock, purchased all of the assets and assumed all of the liabilities of the partnership as shown by the following balance sheet dated May 31, 1900. Sharp & Flat take all the stock except five shares, par value \$100 each, issued to incorporators for cash subscriptions.

BALANCE SHEET—MAY 31, 1900

ASSETS

Plant and machinery	\$35,000
Stock on hand per inventory	20,525
Accounts receivable	22,750
Bills receivable.....	1,500
Cash	5,225
Total assets.....	\$85,000

LIABILITIES

Sharp's capital.....	\$42,500
Flat's "	36,300
Accounts payable	5,250
Bills payable.....	700
Wages due and unpaid.....	250
Total liabilities.....	\$85,000

During the first year of the corporation's existence, the books were kept in the same manner as during the partnership. Soon after the end of the first fiscal year however a certified public accountant was presented with the following trial

balance showing the condition of the books May 31, 1901, and was requested to open a new set of books for the corporation, covering the operations of the business during the past year, and to prepare therefrom an income and profit and loss account and balance sheet:

TRIAL BALANCE—MAY 31, 1901

Sharp's capital.....		\$42,500
Flat's capital.....		36,300
Plant and machinery.....	\$37,500	
Stock on hand per inventory May 31, 1900.....	20,525	
Sales.....		131,405
Purchases: materials and supplies.....	48,000	
Labor.....	34,500	
Office salaries.....	7,000	
Traveling expenses.....	2,400	
Interest.....	600	
Stationery and printing.....	175	
Rent and taxes.....	4,200	
Discounts and allowances.....	2,250	
Fuel.....	4,600	
Insurance.....	175	
Freight (inward).....	1,750	
Commission.....	6,375	
Advertising.....	500	
Bills receivable.....	6,115	
Bills payable.....		1,100
Accounts receivable.....	36,115	
Accounts payable.....		7,850
Cash.....	6,375	
	<u>\$219,155</u>	<u>\$219,155</u>

Draft the opening journal entries necessary to give effect to the above, prepare an income and profit and loss account and a balance sheet as at May 31, 1901.

Write off (a) depreciation 5% on plant and machinery, (b) unexpired insurance \$75, (c) bad debts \$325, (d) inventory, stock on hand May 31, 1901, \$19,605.

2 X, Y and Z, foundrymen, unable to meet their obligations, suspended payment Jan. 1, 1902, and appointed a trustee to realize and liquidate for the benefit of their creditors. The books showed the following assets and liabilities:

ASSETS	
Land and buildings.....	\$125,000
Machinery and tools.....	75,000
Furniture and fixtures.....	10,000
Materials and supplies.....	95,000
Bills receivable.....	15,000
Accounts receivable.....	115,000
Cash.....	450
Total assets.....	<u>\$435,450</u>

LIABILITIES

Mortgage on foundry premises	\$100,000
Bills payable	135,000
Accounts payable	105,000
Interest accrued on mortgage	1,250
Taxes accrued (estimated)	835
Capital	93,365
Total liabilities	\$435,450

The trustee's cash receipts and payments during the year 1902 were as follows:

RECEIPTS

Bills receivable (outstanding Jan. 1, 1902)	\$15,000
Accounts receivable (outstanding Jan. 1, 1902)	106,500
Cash sales	5,435
Bills receivable (contracted during year 1902)	13,500
Accounts receivable (contracted during year 1902)	212,000
Total receipts	\$352,435

PAYMENTS

Bills payable	\$25,000
Accounts payable	35,000
Interest on mortgage one year @ 5%	5,000
Taxes for the year 1901	865
Purchases of materials and supplies	98,000
Labor	135,000
General expenses	45,000
Interest on bills payable to Sep. 30, 1902, @ 5%	2,800
Total payments	\$346,665

Other transactions were as follows:

Sales on credit	\$335,000
Bad debts written off:	
Accounts prior to Jan. 1, 1902	\$8,000
" subsequent to Jan. 1, 1902	2,000
Discounts and allowances to customers:	
Accounts prior to Jan. 1, 1902	\$500
" subsequent to Jan. 1, 1902	300
Notes received from customers	20,000
Notes given to creditors (\$110,000 being renewals)	180,000
Inventory of materials and supplies Dec. 31, 1902, amounted to	92,000

The trust terminated at the end of the year and the business was turned back to the owners.

Prepare realization and liquidation account; also a balance sheet showing the financial condition of the business at the termination of the trust. Accrue taxes for the year in the usual manner, i. e., on the basis of the charge for previous year.

3 John Doe died Jan. 15, 1901, leaving a small estate, and in his will made Richard Roe his executor. The will provided that a legacy of \$5,000 should be paid to Mary Doe, sister of the testator, and that the residuary estate should go to testator's wife and two daughters, share and share alike.

The estate consisted of the following:

Cash in the Dime Savings Bank.....	\$348 50
One month's salary (due the testator from his employer)	250
10 Union Pacific Railroad Company's first mortgage	
5% gold bonds of \$1,000 each.....	10,000
One first income bond, Central Railroad of Georgia	1,000
Demand note of John Smith.....	100

At his death the testator owed two months' rent \$50, Acker, Merrill & Condit, household supplies \$81.50.

The appraiser appointed by the surrogate inventoried all securities and accounts due the estate at their face value.

The executor received \$348.50 from the Dime Savings Bank, with \$14.25 interest. He sold the Union Pacific bonds at 102 and two months' interest, the Central of Georgia income bond for \$875 flat, and paid M. J. Senior, undertaker, \$541 for funeral expenses, Arnold, Constable & Co. \$185 for mourning apparel of widow and children. He also paid for legal and other expenses incidental to the probating of the will, \$125. John Smith was bankrupt, and his note proved to be worthless. The executor deducted his commission and distributed the funds of the estate according to the terms of the will.

From the above statement of facts prepare (a) the executor's inventory of the estate, (b) the executor's summary statement and schedules for presentation to the surrogate's court in final accounting, (c) a statement of the amount of commissions to which the executor was entitled, (d) a statement of the amount paid to each beneficiary.

4 The following is the summary of a trial balance taken from the books of Messrs Broad, Street & Company (stock brokers) Dec. 31, 1902:

Due from customers	\$5,250,000	
Due to customers		\$125,000
Cash	75,000	
Loans		4,750,000
Borrowed and loaned account		55,000
Investments	290,000	
Furniture and fixtures	1,800	
Interest		16,700
Commission		95,300
Expenses	17,200	
F. L. Broad		325,000
T. J. Street		267,000
	<u>\$5,634,000</u>	<u>\$5,634,000</u>

An analysis of the borrowed and loaned account showed stocks borrowed \$185,000, and stocks loaned \$240,000. The firm owed commission bills amounting to \$750, and the interest accrued on loans amounted to \$1,520. The market value of the securities (not including stocks borrowed) calculated at closing prices Dec. 31, 1902, was \$6,200,000 of which \$5,700,000 was pledged to secure loans, \$65,000 was in transfer, \$243,000 was loaned to other brokers, the remaining \$192,000 being on hand.

Prepare *pro forma* balance sheet with profit and loss account, dividing profits or losses equally among the partners.

5 A New York company doing business in London, received the following trial balance from its London office at the end of a fiscal year:

TRIAL BALANCE—LONDON BOOKS

Plant	£100,000	
Accounts receivable	75,000	
Accounts payable		£35,000
Expenses	10,000	
Income		100,000
Merchandise	20,000	
New York office account		135,000
Remittance account	60,000	
Cash	5,000	
	<u>£270,000</u>	<u>£270,000</u>

The New York books showed as follows:

TRIAL BALANCE—NEW YORK BOOKS

Capital stock		\$1,000,000
Patents	\$600,000	
London office account	656,100	
Remittance account		291,712 50
Expenses	10,000	
Cash	25,612 50	
	<u>\$1,291,712 50</u>	<u>\$1,291,712 50</u>



The remittance account consisted of four 60 day drafts on London for £15,000 each, which were sold in New York at 4.85 $\frac{1}{4}$, 4.86, 4.86 $\frac{1}{4}$ and 4.86 $\frac{3}{4}$ respectively.

Make such journal entries as are necessary to incorporate with the New York accounts the results of the year's business in London (conversion to be made at the average rate of exchange of the four remittances) and establish the new balance of London office accounts so that it will agree with the London books when converted into sterling at 4.87 $\frac{1}{4}$, the rate of exchange ruling on the last day of the year. Show also trial balance of the New York books after closing.

6 Bowling, Green & Co. of New York, consign goods to A & B in Havana Cuba, rendering with each shipment a *pro forma* invoice in which the goods are charged at prices in excess of the cost, the cost of freight, insurance, etc. being added. Accounts sales are received from time to time, the net proceeds being remitted by drafts.

Show how the following transactions would appear in Bowling, Green & Co.'s ledger:

- a Shipment of goods Jan. 1, 1902, and invoice rendered to A & B of Havana, for \$9,850, as follows:

Merchandise	\$9,000
Freight	700
Insurance.....	150
Total.....	<u>\$9.850</u>

The cost of these goods was \$8,700.

- b Account sales received Mar. 15, 1902, for part of the consignment, showed gross proceeds \$5,400, less dock and other expenses, including commission, \$150. This account was accompanied by a 60 day draft for \$5,250.
- c Account sales received June 16, 1902, for balance of the consignment, showed gross proceeds \$5,660, less dock and other expenses, including commission, \$175, and was accompanied by a 90 day draft for \$5,485.

College Department

13TH ACCOUNTANT EXAMINATION

AUDITING

Wednesday, January 28, 1903—9.15 a. m. to 12.15 p. m., only

"The Regents of the University shall make rules for the examination of persons applying for certificates under this act, and may appoint a board of three examiners for the purpose . . ."

Laws of 1896, ch. 312, § 2

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1 You are consulted by a manufacturing company on the question of making periodic audits of its accounts. What arguments would you advance in favor of such audits?

2 Set forth in detail and in order of importance the special instructions that should be given an assistant who has charge of the audit of the books of an electric railway, a bank or a stock-broker.

3 What is usually included in the account "organization expenses" in the books of a company? How should this account be treated? Give reasons.

4 Should the audit of a corporation include a critical examination of the minute book, and if so, why?

5 A reserve fund of \$250,000 has been set aside out of the profits of a company and invested in government securities at par. How should the fund and investment appear on the balance sheet of the company (a) if the value has increased, (b) if the value has decreased? Give reasons for your answer.

6 Comparison of "manufacturing wages cost" for successive periods shows marked variation in amounts. Explain several causes productive of this condition.

7 If called on to make audit of a set of books where defalcations were suspected, what course would you adopt?

8 State your method of verifying the bills receivable account. Does the balance of acceptances unmatured affect the bad and doubtful debts account, and if so, how? What evidence would you require of the dishonor of an acceptance?



9 In auditing the accounts of Bruce & Co. you find that a dishonored acceptance of Andrews for \$2,500 is included in the bills receivable balance. If this is not correct, state how it should have been treated.

10 Should a firm or company take credit in its profit and loss account for uncompleted work? Give reasons for your answer.

11 State in detail the successive steps that should be taken in auditing the accounts of the executor of an estate.

12 To what extent would you, as auditor, concern yourself in the matter of depreciation allowances?

13 What methods should be employed to test the prime cost of manufactured goods in order to make sure that there were no losses of raw material through dishonesty of employees?

14 Mention several transactions which, in an audit of the accounts of a village, would require inspection of the official minutes for verification.

15 The balance of cash on hand at the date of audit according to the cashbook and ledger is \$15,906.27; the bank passbook on the same date shows a balance of \$16,527.02. Which amount should appear on the balance sheet? Why?

College Department

14TH ACCOUNTANT EXAMINATION

AUDITING

Wednesday, June 24, 1903—9.15 a. m. to 12.15 p. m., only

"The Regents of the University shall make rules for the examination of persons applying for certificates under this act, and may appoint a board of three examiners for the purpose"

Laws of 1896, ch. 312, § 2

Answer 10 questions but no more. Answers in excess of the number required will not be considered. Do not repeat questions but write answers only, designating by number as in question paper. Check the number (✓) of each one of the questions you have answered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 In addition to practical experience in the keeping of books of account, what special qualifications should a public auditor possess?

2 In what cases, if any, should checks be regarded as insufficient vouchers for the payment of bills?

3 If, in the course of an audit, it is found that the balance shown by the bank pass book agrees with the balance shown in the cashbook after all outstanding checks have been taken into consideration, should this be deemed conclusive evidence of the correctness of the bank balance? If not, what further evidence should be required?

4 Give examples of such assets and liabilities, not usually found on books of account, as should be considered by the auditor when preparing an income and profit and loss account at the close of a fiscal period.

5 State in consecutive order, the steps you would take in auditing the books of a corporation with which you are familiar.

6 What method should be adopted to verify the correctness of amounts paid by a corporation for (a) directors' fees, (b) agents' and salesmen's commissions?

7 What method should an auditor employ in determining (a) valuation of stock, (b) valuation of accounts receivable, (c) additions to plant and property account?

8 What special considerations would influence you in fixing the rate of depreciation chargeable on (a) buildings, (b) machinery, (c) tools and fixtures, (d) patterns?

9 In making an audit of a firm's books for the purpose of certifying its annual profits for a period of years and with a view to its conversion into a corporation, what items of earnings and expenses should be omitted which ordinarily would be properly included in its regular annual profit and loss account?

10 In making a first audit of the accounts rendered by an executor what documents would be required to enable the auditor properly to perform his duty?

11 In a manufacturing and profit and loss account prepared from a trial balance submitted by your client and verified by you, what expense accounts would you charge in the manufacturing account, and what in the profit and loss account? [Refer to any manufacturing business with which you are familiar.]

12 How would you proceed to audit the transactions of a business for which no cashbook, journal, or ledger had been kept?

13 Describe a desirable system of keeping a petty cashbook and petty cash vouchers.

14 What safeguards in accounting would you suggest to a client to prevent loss of stock by theft?

15 What can an auditor do to verify (a) inventories, (b) pay-rolls?

College Department

13TH ACCOUNTANT EXAMINATION

COMMERCIAL LAW

Wednesday, January 28, 1903—1.15 to 4.15 p. m., only

"The Regents of the University shall make rules for the examination of persons applying for certificates under this act, and may appoint a board of three examiners for the purpose"

Laws of 1896, ch. 312, § 2

Answer 10 questions but no more. Answers in excess of the number required will not be considered. Do not repeat questions but write answers only, designating by number as in question paper. Check the number (✓) of each one of the questions you have answered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Does a "contract by specialty" require a consideration? If so, how does such a contract differ from a "simple contract" respecting the matter of consideration? What are "contracts of record"? To which of these classes of contracts do judgments and recognizances belong?

2 A owes B \$100 which has been due for seven years. No payment has been made and no action has been brought. Subsequently A promises B, orally, to pay the debt. Can B recover on this promise or on any theory? Would your answer be the same if A's last promise had been in writing? Explain.

3 Distinguish between agent and servant; between agent and "independent contractor." In what relation respecting agency does a partner stand toward the firm of which he is a member? When must a contract of agency be in writing and when under seal?

4 If the seller of goods agrees to send them to the buyer, no time being specified, what is the duty of the seller as to time? If, under a contract of sale of goods which the buyer has not seen, the seller delivers goods conforming to the contract requirement to a common carrier for transportation to the buyer, when does the title to such goods pass to the buyer? Who would bear the loss if the goods were injured in transit, the carrier not being at fault?

5 When a seller ostensibly makes a present sale of goods which are not then in existence, what is the effect of the contract? Is the seller liable in damages, if he contracts to sell specific goods at a future time, and without his fault the goods perish before such time?

6 What are the main points of difference between a promissory note and a bill of exchange? How does a check differ from an ordinary bill of exchange? Give an illustration of the proper way of signing a negotiable instrument for (a) a corporation by an officer, (b) an individual or firm by an agent or attorney.

7 Under what circumstances is the taking of a debtor's note to be treated as payment of a preexisting debt? If the note is not taken as absolute payment and is afterward dishonored, must the creditor bring suit on it before returning to his original demand? Is the note of a third party, if taken at the time a debt is created (as on the sale of goods), to be treated as payment therefor?

8 Will an assignee acting in good faith be protected in his acts if the assignment be afterward set aside as fraudulent? What is the general personal liability of an assignee for damages resulting from his acts or omissions? What is the duty of an assignee as to accounting? What compensation is allowed an assignee?

9 When may an executor voluntarily present his account and ask that the same be judicially settled and the sureties on his bonds discharged? What in general are the classes of claims which may be considered on an application for such an accounting?

10 In what order, as to priority, must an executor pay the different classes of debts against his testator's estate? Must an executor pay interest to the legatee on a specific legacy? If not, is a specific legatee entitled to receive any income arising from the legacy? What is a lapsed legacy and how should a lapsed legacy be disposed of by the executor?

11 Under what conditions may a receiver for the property of a corporation be appointed? What are "receiver's certificates"? What property of the judgment debtor passes to a receiver? Is it necessary that the debtor should execute a formal assignment thereof?

12 Can the relation of partner arise between individuals in any other way than by their voluntary agreement? Is a consideration necessary to the validity of a contract of partnership? Is a contract usurious if it specifies an agreement among partners that one shall receive more than the statutory rate of

interest for additional capital contributed by him for the firm's use? Give reasons.

13 What facts are necessary to give creditors the right to hold as a partner one who is in fact not a partner, but who has allowed his name to be used in the firm title? What is the statutory provision respecting the use of fictitious partnership names? How may a retiring partner protect himself from liability for debts afterward contracted by the firm? Has a partner an individual title to any of the firm assets? If not, what is the nature of his interest in the firm property?

14 To what amount may a stockholder in a business corporation be held liable personally when sued on his stockholder's liability? Must two or more corporations wishing to consolidate into one be engaged in the same kind of business? How would such a consolidation affect the rights of previous creditors of the constituent corporations? After the voluntary dissolution (under the statute) of a business corporation, what would be the status of a director thereof, respecting claims in favor of or against such corporation?

15 What misrepresentation respecting an insurance policy would operate to avoid the policy? Does this answer also apply to concealment of facts as well as to misrepresentation? Define "insurable interest" as to both life and fire insurance. Must the extent of the interest of the assured be set forth in the policy?

College Department

14TH ACCOUNTANT EXAMINATION

COMMERCIAL LAW

Wednesday, June 24, 1903—1.15 to 4.15 p. m., only

"The Regents of the University shall make rules for the examination of persons applying for certificates under this act, and may appoint a board of three examiners for the purpose"

Laws of 1896, ch. 312, § 2

Answer 10 questions but no more. Answers in excess of the number required will not be considered. Do not repeat questions but write answers only, designating by number as in question paper. Check the number (✓) of each one of the questions you have answered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 What is the source of our present bankruptcy law? Mention *three* things that may be treated as acts of bankruptcy. May a partnership be adjudged bankrupt? Does a discharge in bankruptcy release a bankrupt from his personal debts, and if so, how may he afterward legally obligate himself to pay any such debt?

2 What is a receiver? Is a receiver an agent or representative of either party to the action? May a corporation act as a receiver? Does the receiver of an insolvent corporation have any greater rights as to bringing suits against debtors of the corporation than the corporation possessed? How may a receiver reimburse himself for expenses incurred by him in attempting to preserve the property of which he is receiver?

3 Can a sole surviving partner of an insolvent firm make a general assignment of its assets for the benefit of its creditors without the assent of the representatives of the deceased partner? On the dissolution of a partnership by death of a partner, is the firm name part of the goodwill in which the estate of the deceased partner is entitled to share? Explain.

4 What is the minimum amount of capital necessary for a business corporation formed under the statute? How many persons are necessary to form a corporation in New York? How are directors chosen? Define municipal corporation, stock corporation. Is a corporation liable to forfeiture of its charter for non-user? If so, in what case?

5 Should the title to personal and to real property purchased by a partnership be taken in the firm name or in the names of the individual partners? May a good title to firm realty be passed without the wives of the partners joining in the deed? In case of the death of a partner to whom does the legal title to the firm assets pass? What rights has a partner as to an accounting with his associates?

6 Is a mortgage executed by a person of unsound mind void? May an infant make a valid mortgage? May a conveyance of

property, absolute on its face, and under seal, be shown by outside evidence to be in fact intended only as a mortgage?

7 Explain the difference between a condition and a warranty in a contract of sale. If in a mercantile contract a certain material statement stipulated as being "of the essence of the contract", is violated, what remedy has the injured party? May an injured party, if he choose, treat a breach of condition as a breach of warranty?

8 Distinguish between an involuntary assignment and a voluntary assignment for the benefit of creditors. If the federal bankruptcy law conflicts with the state law of insolvent assignments, which law controls? Does your answer apply to voluntary assignments for the benefit of creditors? Is a voluntary assignment by one who is insolvent an act of bankruptcy? What, in law, constitutes insolvency?

9 What is the source of authority of (a) executors, (b) administrators? What is an "administrator with the will annexed"? Must an executor pay legacies at once? If not, what are his duties with respect to the time of payment of legacies?

10 How many witnesses are necessary to the valid execution of a will? What persons under the statutes are permitted to make wills of personal property? Is your answer the same in respect to wills of real property? May any of the formalities necessary to the execution of a will be omitted in the execution of a codicil?

11 Distinguish between a sale and a mortgage of real property. Distinguish between buying property "subject to the mortgage," and "assuming the mortgage". If the mortgaged property is not sufficient to pay the mortgage debt, how may the mortgagee proceed to collect the balance?

12 State whether *each* of the following is real or personal property: growing crops, standing trees. Would the statute of frauds apply to a sale of either or both of the above mentioned properties?

13 Is it necessary that a consideration be of some benefit to either party to a contract? Does moral duty furnish a sufficient consideration in New York? What two things constitute mutual assent? In general what classes of contracts may be assigned by one party thereto to a third person, without the consent of the other party to the contract?

14 Mention the characteristics that an instrument must possess in order to be negotiable. How is a negotiable instrument transferred? What is an accommodation indorser?

15 Does the relation of principal and agent always rest on consent? If not, give an example of agency not resting on consent. May an infant act as agent so as to bind the principal? Is an unincorporated club a competent principal? When may the members of such a club be held as principals?



College Department

9TH BUSINESS EXAMINATION

ADVANCED BOOKKEEPING

Tuesday, January 27, 1903—9.15 a. m. to 12.15 p. m., only

Answer all questions. Double entry bookkeeping is implied. Ruled journal or ledger paper may be used, but the candidate will be held responsible for the ruling called for by the questions. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-10 James B. Hazard, managing clerk for Parshall & Mauser, wholesale grocers, 149 Main st. Syracuse, writes to his old friend George S. Bates, at Houghton, Mich. that his firm wants to sell the stock and fixtures on hand, with the goodwill of the business, and retire. Hazard urges Bates to join in the purchase, as the business is prosperous and paying well. The correspondence begins July 31, 1902, and as a result of the negotiations, Bates satisfactorily arranges his mining interests and the men agree to form an unlimited copartnership under the name of Hazard & Bates, gains or losses to be shared equally and each partner to give his entire time to the business. Parshall & Mauser agree to sell the entire stock of merchandise on hand for \$12,000 and the goodwill for \$4000, the amount to be paid half in cash and half in approved notes. They make no charge for furniture and fixtures and the new firm is to assume the lease of store. The further details appear in the transactions stated below.

You are to record the following transactions, using the books mentioned: invoice book; double page cashbook, having four money columns on each page (Accounts receivable Cr. Mdse discount Dr. Merchandise Cr. Cash Dr.; Accounts payable Dr. Mdse discount Cr. Expense Dr. Cash Cr.); sales book; ledger; the journal to be used only for entries that could not properly be made in the other books. No "Cash account" is to be kept in ledger.

Aug. 12. Hazard invests cash \$3000 and his note (secured by mortgage on real estate) \$4000, this date, payable to the order of the new firm six months after date, with interest; Bates invests cash \$10,000. Hazard & Bates arrange to do their bank business with Traders' National Bank and deposit the \$13,000 cash. The old firm surrenders possession of store, merchandise, goodwill etc. and receives, in full payment, certified check \$8000; note of J. B. Hazard indorsed by Hazard & Bates \$4000; note of Hazard & Bates, one year after date, with interest, \$4000.

Aug. 14. Bought coal for store \$27.50, books and stationery \$25, and gave a check for each purchase. Sold D. W. Black. Dansville ("C. O. D. accounts") 2 cases R. baking powder @ \$4.80; 3 boxes evaporated apricots 75 lb @ 10¢.

Aug. 15. Sold H. T. Willard, Dunkirk, 10 bbl. P. flour @ \$4.75; 10 half chests Japan tea 750 lb @ 35¢; 5 bbl. L. starch

800 lb @ $3\frac{1}{2}\phi$. Terms, $\frac{2}{5}$ n/60 (2% off 5 days, net 60 days). Cash sales to sundry persons \$36.50.

Aug. 16. Sold B. T. Wallace & Co. Cortland, 12 bbl. N. O. molasses 600 gal. @ 36ϕ ; 10 bbl. F. G. sugar 3250 lb @ 6ϕ . Terms, $\frac{2}{10}$ n/60. Cash sales \$75.85.

Aug. 18. Bought of L. Barker & Co. New York, 500 1-pound cans B. cocoa @ 48ϕ ; 500 boxes B. chocolate 6000 lb @ 27ϕ ; 5000 lb P. tapioca @ 3ϕ . Terms, $\frac{3}{5}$ n/30. Rec'd C. O. D. remittance % D. W. Black. Cash sales \$186.75.

Aug. 19. H. T. Willard sends in payment of his bill a promissory note of \$250 made by R. T. Lester, Syracuse, in Willard's favor, payable at Farmers' Bank, Syracuse, indorsed by payee and due Aug. 20, and a N. Y. draft to balance, both being duly placed to Willard's credit as cash and deposited in Traders' National Bank. Cash sales \$290.50.

Aug. 20. Bought on telegraph order, of P. L. Walters & Son, Boston, 50 boxes mucilage @ 90ϕ ; 100 boxes butter color @ \$1.50; 75 cases D. salad dressing @ 90ϕ . Terms, $\frac{3}{5}$ n/60. Cash sales \$129.20.

Aug. 21. Traders' National Bank returns Lester's note. Gave check for face of note and protest expenses \$1.48, and notified Willard. Sold Mumford & Chace, Elmira, 20 bbl. Wh. C sugar 6600 lb @ $4\frac{1}{2}\phi$; 20 half chests Japan tea 1500 lb @ 35ϕ . Terms, $\frac{2}{5}$ n/30. Cash sales \$64.05.

Aug. 22. Sent L. Barker & Co. N. Y. draft for amount due on invoice Aug. 18. Sold H. T. Willard 10 half chests Japan tea 750 lb @ 35ϕ ; 5 half chests F. O. tea 300 lb @ 51ϕ ; 10 half chests M. Y. H. tea 700 lb @ 28ϕ ; 3 bags ice-cream salt @ 75ϕ ; 3 bbl. H. W. Starch 480 lb @ $6\frac{1}{2}\phi$. Terms, $\frac{2}{5}$ n/30.

Aug. 23. Sent N. Y. draft to P. L. Walters & Son for invoice of Aug. 20. Cash sales \$212.15.

Aug. 26. Rec'd remittance from B. T. Wallace & Co. bill Aug. 16; Mumford & Chace, Aug. 21. H. T. Willard remits for bill of Aug. 22 and for Lester's protested note with protest expenses, also including \$6.80, the discount heretofore allowed on his first bill. This \$6.80 is at once returned to Willard with the dishonored note. Sold Chambers & Bailey, Auburn, 100 pails #1 mackerel @ \$2.40; 30 bags P. R. coffee 3750 lb @ 28ϕ ; 30 mats F. J. coffee 2250 lb @ 30ϕ . Terms, $\frac{2}{10}$ n/60.

Aug. 28. Cash sales \$189.75.

Aug. 30. Paid bookkeeper \$55, billing clerk \$33, porter \$25, driver \$10; for postage and telegrams \$8.25, horse feed \$5.50, blacksmithing \$3.40. Cash sales \$73.25.

Post the accounts to the ledger and show the present net capital of the firm. The inventories are: mdse \$10,486.20; expense \$47.

Keep this paper. It will be used as the basis of questions in other examinations during the week.



College Department

IITH BUSINESS EXAMINATION

ADVANCED BOOKKEEPING

Tuesday, June 16, 1903—9.15 a. m. to 12.15 p. m., only

Answer all questions. Double entry bookkeeping is implied. Ruled journal or ledger paper may be used, but the candidate will be held responsible for the ruling called for by the questions. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-10 Walter T. Alling, John Embler and Robert Brown, after correspondence and consultation, decide to form an unlimited partnership in the dry goods business to be carried on under the name of Brown & Co. at no. 593-95 Bond st. Buffalo, and to date from April 6, 1903. Brown is doing business at the Bond st. store, where he carries a small stock, Embler has been the bookkeeper for a manufacturing business, and Alling, who lives in New York, has been for many years traveling salesman for a wholesale dry goods house in that city. He is promised by this firm a very liberal line of credit for the new firm. Alling invests cash \$2000, Embler invests cash \$4000, and Brown invests merchandise valued by appraisers at \$3175.50, furniture and fixtures \$174.50 and cash \$485.30. Alling is to travel for the firm, Embler is to take charge of the accounts and Brown is to take the general management of the store. The partners are to share gains and losses equally, interest on capital to be adjusted at the end of each fiscal year.

Make, in proper form, the record of the above mentioned investments and of the transactions which follow. The books to be used are cashbook, journal, sales book and invoice book, from all of which postings are to be made direct to the ledger. In the cashbook use one column specially for "Merchandise, cash sales," and one for "Expense."

Apr. 7. Sold Spence & Cone, Dunkirk, 3 pc. 45, 41, 50 yd. Am. black dress silk @ \$1.25; 2 pc. 50, 51 yd. black Eng. camel's-hair @ \$1.85. Terms, acceptance our draft at 15 days. Cash sales to sundry persons \$35.50.

Apr. 8. Cash sales \$56.

Apr. 9. Had Spence & Cone's acceptance discounted at Commercial National Bank. Cash sales \$42.25.

Apr. 11. Bought of Jones Bros. Boston, 6 pc. 40, 43, 45, 42, 46, 40 yd. fancy gingham @ 61¢; 8 pc. 52, 47, 49, 51, 45,

52, 48, 47 yd. fine Eng. serge @ \$1.37½; 10 doz. men's Balbriggan half-hose @ \$5.50. Terms, $\frac{2}{10}$ n/60 (2% off 10 days, net 60 days).

Apr. 13. Sold L. Baxter, Le Roy (C. O. D. $\frac{1}{2}$ %) 2 pc. fancy black ribbon @ \$3.40. Cash sales \$46.50.

Apr. 14. Sold Schuyler & Graham, Batavia, 3 pc. 45, 50, 42 yd. cashmere @ \$1.35. Terms, $\frac{2}{10}$ n/60. Cash sales \$61.20.

Apr. 15. Cash sales \$64.

Apr. 16. Bought of A. B. Wilkes & Son, Philadelphia, 50 pc. duchesse lace @ \$2.25. Terms, $\frac{3}{5}$ n/30. Paid freight on invoice, Jones Bros. \$2.85, cartage 55¢. Cash sales \$42.15.

Apr. 17. Sold J. B. Stowell, Elmira, 2 pc. 45, 50 yd. Am. black dress silk @ \$1.25; 1 pc. 60 yds. Amazon cloth @ \$1.25; 1 pc. 52 yd. fine Eng. serge @ \$1.55. Terms, $\frac{2}{10}$ n/60. Received C. O. D. remittance $\frac{1}{2}$ L. Baxter.

Apr. 18. Sold Armstrong & Co. Erie Pa. 3 pc. 48, 42, 53 yd. black etamine @ \$2. Terms, $\frac{2}{10}$ n/60. Sent Jones Bros. N. Y. draft for invoice Apr. 11. Cash sales \$69.28.

Apr. 20. Sent A. B. Wilkes & Son N. Y. draft for invoice Apr. 16. Sold Leon Chace, Corning, 2 pc. 47, 53 yd. silk surah lining @ 62¢; 1 pc. 51 yd. taffeta silk @ \$1. Terms, $\frac{2}{10}$ n/60. Cash sales \$35.60.

Apr. 23. Schuyler & Graham remit N. Y. draft for bill Apr. 14. Commercial National Bank returns acceptance of Spence & Cone unpaid, with protest expenses \$1.54. Paid freight on invoice, A. B. Wilkes & Son \$1.12, cartage 25¢. Cash sales \$76.50.

Apr. 25. Cash sales \$47.84.

Apr. 27. J. B. Stowell paid bill Apr. 17. Cash sales \$51.25.

Apr. 28. Armstrong & Co. paid bill Apr. 18.

Apr. 29. Cash sales \$62.50.

Apr. 30. Paid rent of store \$87.50; billing clerk \$32; porter \$25; stationery \$18.40; postage \$6; telegrams \$2.85. Cash sales \$48.75.

Post all accounts to ledger, make trial balance and show net gain or loss. The inventories are: mdse \$2329.85; furniture and fixtures \$174.50.

Keep this paper. It will be used as the basis of questions in other examinations during the week.

College Department

9TH BUSINESS EXAMINATION

BUSINESS ARITHMETIC

Tuesday, January 27, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. Answers in excess of the number required will not be considered. Give all operations (except mental ones) necessary to find results. Reduce each result to its simplest form and mark it Ans. Compute interest at the rate of 6% for a year of 365 days, unless otherwise specified in the questions. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Find the value of a pile of wood 28.25 meters long, 1.75 meters wide and 1.5 meters high @ 7.20 francs a stere (cubic meter).

2 How much will it cost, @ \$1.15 a yard, to carpet a room 24 feet long and 20 feet wide, with strips 30 inches wide, if $2\frac{1}{2}$ yards are allowed for waste in matching the pattern and the strips run lengthwise of the room?

3 A vat filled with refined oil measures 8 meters long, 4 meters 5 decimeters wide and 3 meters 5 decimeters deep; what is the value of the oil at .48 francs a liter?

4 A rectangular pond 60 feet long and 25 feet wide is covered with ice 9 inches thick; what is the value of the ice @ \$2.25 a ton? [1 cubic foot of ice=920 ounces avoirdupois.]

5 What amount should be invested in United States 4% bonds @ 118 $\frac{1}{2}$, in order to realize a quarterly income of \$300? What would be the total net income realized at the end of two years if the bonds were then sold at 118?

6 Coffee costing 18¢ a pound has lost 10% in weight by roasting; how much must it sell for in order to gain 15%?

7 A young man deposited \$2000 in a savings bank @ $3\frac{1}{2}$ % interest, payable semi-annually and compounded; if there were no withdrawals what amount should his pass book show at the end of three years?

8 An importer bought 185 yards of English suiting @ 12s 6d a yard; the duty was 40% ad valorem, freight and other charges £9 3s, rate of exchange 4.88. He sold the entire invoice at a gain of 20% of the total cost. What was his net gain in United States money?

9 A owes B \$1050 which he can not pay; A has an interest in certain property which will be settled in about three months

and which he will assign to B as collateral security. For what sum should he draw his note at 100 days without interest, to cancel the debt.

10 Three partners gain \$5481 in the year's business; A's share is three times B's and B's share is twice as much as C's. What sum should each receive? [Solve mentally and write out the analysis.]

11 A hardware dealer selects goods amounting to \$1250 list price; he is offered his choice of the following discounts: 10, 10 and 5, with 30 days credit, or 25 off for cash. Assuming that he will have to borrow the money at 6% if he accepts the cash offer, which is the better offer and how much?

12 A New York tailor owes a London merchant £172 10s. Direct exchange on London is 4.86. He remits through Paris and Berlin. Exchange between New York and Paris is quoted at 5.25 francs to the dollar, between Paris and Berlin 1.22½ francs to the mark, between Berlin and London 20.25 marks to the pound. What will be the tailor's gain or loss?

13 The freight charges on 14,700 pounds of merchandise were \$88.20 for 288 miles; at the same rate, what amount would be charged for 33,900 pounds of the same class of goods for 108 miles? [Solve by proportion.]

14 The assignee received from the sale of the property of an insolvent debtor \$38,112.58; the total liabilities were \$48,718.14 and expenses of settling \$843.20. How much can he pay on the dollar and what will a creditor receive whose claim is \$7526.50?

15 Arthur & Hoffman buy in Duluth 32,000 bushels hard wheat @ 72¢. The commission for buying is ¼¢, the loading charges 2¢ and the freight to Buffalo 2½¢ a bushel. When the wheat is weighed out at Buffalo it falls short 3855 pounds. The wheat is sold in Buffalo @ 81¢ a bushel, the elevator charges being 2¢ a bushel and the brokerage ¼¢ a bushel. What is the gain or loss?



College Department

11TH BUSINESS EXAMINATION

BUSINESS ARITHMETIC

Tuesday, June 16, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. Answers in excess of the number required will not be considered. Give all operations (except mental ones) necessary to find results. Reduce each result to its simplest form and mark it Ans. Compute interest at the rate of 6% for a year of 365 days, unless otherwise specified in the questions. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 What would be the expense of digging a cellar 14.5 meters long, 7.25 meters wide and 2.75 meters deep at 3.70 francs a cubic meter?

2 The gable-roof of a house 65 feet deep measures 25 feet from eaves to ridge. State the cost, @ \$3.10 $\text{\P}$ M, of the shingles to cover this roof, if the exposed portion of each shingle is $5'' \times 5''$. [Make no allowances.]

3 A grocer bought a cask of vinegar containing 52 gal. 2 qt. @ 18¢ a gal. On transferring the vinegar to another vessel he found that 13 gal. 1 pt. had leaked away. How much must he charge a quart to cover the cost?

4 A bin 1.75 meters high, 3.5 meters wide and 5 meters long is filled with wheat; what is the value of the wheat @ 10.60 francs a hectoliter?

5 A butcher bought a lot of live turkeys weighing 210 lb for \$38.60; when dressed they lost $\frac{1}{4}$ in weight. At what price a pound must he sell to gain \$2.40 on the deal? [Solve mentally and write out the analysis.]

6 What is the present worth of a debt of \$3640 due in 70 days? [See rule as to interest at the head of this paper.]

7 A note for \$1950 bearing interest at 5%, dated July 11, 1902 and payable one day after date, has the following indorsements: Sep. 23, 1902 \$300; Dec. 12, 1902 \$500; May 15, 1903 \$50. How much is due today? [Solve by United States rule.]

8 A customer deposited May 6 \$4000 on which margin his broker bought 500 shares of railway stock @ 78; the stock was sold by the broker June 2, @ 76 $\frac{1}{2}$. How much is due the customer if the broker is allowed $\frac{1}{8}\%$ brokerage each way and interest on money advanced?

9 A New York exporter has matured foreign credits as follows: London, £125 6s; Paris, 625.50 francs; Berlin, 4400 marks. What amount in United States money is due the exporter, if exchange is in all cases at par?

10 A retired merchant wishing to invest his capital, \$25,256, bought \$9000 of U. S. 5's @ 107½ and \$8500 of U. S. 4½'s @ 106½; the remainder he invested in mining stock @ 78½, which paid a dividend of 10% on the par value. What is the annual income?

11 An importer bought 125 meters of flannel @ 2.30 francs a meter and 150 meters of silk @ 3.50 francs a meter, all other charges amounting to 325.75 francs; he sold the flannel @ 45¢ a yard. At what price a yard must he sell the silk to realize a net profit of 20% on the entire lot? [1 meter=39.37 inches.]

12 Downs & Morrison fail and make an assignment, assets \$82,798.50, liabilities \$89,367.10. By consent of all the creditors Henry Johnson's claim of \$3500 is made preferential. The assignee's expenses and fees amount to \$1325.70. How much should be paid to a creditor whose admitted claim is \$7500?

13 A commission merchant sold for his principal 20 bbl. yellow C sugar, 6062 lb @ 5¢; 25 bbl. soft A sugar, 7098 lb @ 4¼¢. The charges were freight 22¢ a bbl., cartage 5¢ a bbl., storage \$2.58 and commission 2%. What are the net proceeds? How much wheat, @ 71¢ a bu., can he buy with the proceeds, if the commission for buying is 1¢ a bu.?

14 The insurance on a certain store was distributed among the following companies: Germania \$2000, Knickerbocker \$7000, Hanover \$6000, United States \$5000. The goods in said store were insured for \$10,000 in the Continental and for \$15,000 in the Commercial. Fire damaged the building to the extent of \$4750 and the goods to the extent of \$6700. How much will each company be required to pay?

15 A tank has a feeder by which it can be filled in 10 hours and an outlet by which when full it can be emptied in 6 hours. If both feeder and outlet are opened when the tank is full, in what time will it be emptied?



College Department

9TH BUSINESS EXAMINATION

COMMERCIAL LAW

Wednesday, January 28, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. Answers in excess of the number required will not be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 What is a negotiable instrument? Write out in correct form a negotiable instrument. Distinguish between assignability and negotiability.

2 Of the promissory notes suggested in the following characteristic list, indicate those that are negotiable, and state why the others are not negotiable: (a) payable to bearer, (b) payable when the owner reaches the age of 30 years, (c) payable in goods at my store, (d) payable on demand, (e) payable one day after death, (f) payable when payee marries, (g) payable when payee completes the building on my land according to contract.

3 A sells goods to B without any understanding as to time of payment and allows B to take them away. In the absence of fraud, can A recover the goods because B fails to pay the price on demand? Give reasons.

4 A partner in a mercantile firm, commissioned to replenish the stock in certain lines, delivered his own goods to the firm and took pay at the market price without informing his copartners that he was the seller. Is he bound to account for any profit realized by him in the transaction? State the principle.

5 A dealer buys from a farmer all the wheat in a certain bin, taking the farmer's tally as to the number of bushels. The farmer agrees to keep it for the buyer's accommodation till the following day. In the meantime the grain is burned without fault of buyer or seller. Who bears the loss? Explain.

6 C offers by letter to sell D 2000 to 5000 tons of spiegel-iron at a stated price. D answers immediately that he will take 1500 tons. Is C bound to furnish the iron? State the principle.

7 E, with intent to make a sale, tells F that a certain horse which he has shown him is sound. F examines the horse and finds that he is unsound, but buys him notwithstanding this fact. Can F rescind the contract or recover damages? Why?

8 G, who was going into business, met H sometime in March and in the course of a conversation said that he would pay H \$900 to act as his bookkeeper for one year from the first day of May following. H began work as agreed, and served four months, when he was dismissed without cause. Can H recover for services? Write an opinion, stating the law.

9 J, a manufacturer, sells his factory, tools, stock, goodwill etc. to K, agreeing that he will not for a period of five years engage again in that line of business. Is J legally bound to keep this agreement? State the principle.

10 What is a chattel mortgage? In what respect does such a mortgage differ from a pledge of chattels? If a chattel mortgage is intended by the parties to cover the stock of goods and fixtures in a certain store, and by an oversight in drawing up the mortgage the fixtures are not mentioned, can the mortgagee be permitted to prove the real intent so that the mortgage may cover the fixtures? Give reasons.

11 A banker takes for safe-keeping a package of money and securities marked with the depositor's name. The package is soon after stolen by the banker's cashier, who has hitherto borne a good reputation, and has in no way excited the banker's suspicions. Is the banker liable? State the principle.

12 What is the liability of a common carrier of goods in the state of New York? When does a railway company become liable as common carrier for goods offered for transportation, and when does this liability end? What liability would still rest on the company till goods were taken away?

13 What is the nature of the common carrier's lien on the goods carried? How may this lien be lost or extinguished?

14 L makes a deed of real estate in favor of M, but makes no mention of it and locks it in his safe. L dies and the deed is found among his papers. Can M hold the property? Give reasons.

15 N has received in due course a discharge in bankruptcy. He afterward becomes prosperous and promises one of his creditors to pay a debt incurred before the proceedings in bankruptcy. Is this promise binding? State the principle.



College Department

IITH BUSINESS EXAMINATION

COMMERCIAL LAW

Wednesday, June 17, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. Answers in excess of the number required will not be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 In what respects as to form and effect does a sealed contract, or specialty, differ from a simple contract?

2 What is the statutory rate of interest in the State of New York? Are there any conditions under which a banker may take a much higher rate of interest if the parties agree? If so, state these conditions.

3 What precautions is the maker of negotiable paper required to exercise in the interest of himself and others into whose hands the paper may come? Give an illustration.

4 Draw up and show execution of a paper by which you are empowered to make and indorse commercial paper for the firm of Brown & Co., consisting of Robert Brown, Walter T. Alling and John Embler of Buffalo. What is such a document called?

5 A bought a horse of B for \$100, on B's false representation that he was "a good horse and easily worth the money." Can A rescind or recover damages on the ground of fraud? State the law applicable to the case.

6 C owes D \$100 which is overdue. C admits the debt, but says he can not pay it. D offers to accept \$60 in full payment and C pays him \$60. Would this payment bar an action by D to recover \$40 from C? State the principle involved.

7 E, seeing a piece of antique furniture in the rooms of a dealer, asks the price and the dealer says \$50. E understanding him to say \$15, says "Send it up." The piece is delivered at E's house and at the end of the month a bill is sent for \$50. Is there a contract of sale? Why?

8 What negotiable paper may be transferred by delivery without indorsement? In the absence of any special agreement or stipulation, what would be the liability of one who makes such transfer?

9 The holder of a certificate of deposit, fraudulently and without consent of the maker, altered the rate of interest from

6% to 10% by writing "ten" in a space left blank. How is the instrument affected by this alteration? Give reasons.

10 F buys goods of G and gives J's note payable to bearer in payment, orally guaranteeing the note good and collectible. Is F bound by his guaranty? Why?

11 K of Galveston writes L of Boston that he is about to draw on him at 30 days for \$3000. L answers by letter that the draft will be honored. Is L liable to X who discounts the draft for K on the strength of this letter? Write an opinion as to the principle of law.

12 M, owing N \$500, paid \$200 on account and took a receipt for the amount. Two days later he paid another \$100 and asked and obtained from N a receipt for \$300, in full to date. No further payments being made, N sues for the balance due and M produces receipts aggregating \$500. Will N be allowed to offer proof that only \$300 was paid? What principle is involved?

13 A carrier contracts to deliver certain goods at a certain city on or before a day stated or to deduct 10 cents a 100 from the rate for every day over time. He fails to deliver on time, on account of damage done by a freshet. Is he liable for breach of contract and, if so, to what extent? State the principle.

14 An insurance agent was expressly instructed to cancel a certain policy, but neglected to do so. There was a loss under this policy which the company had to pay. What is the liability of the agent? State the principle.

15 In the purchase of real estate what should be done about the title and conveyance? Give explicit instructions.

COMMERCIAL GEOGRAPHY

Thursday, January 29, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. Answers in excess of the number required will not be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Give a detailed description of some productive or manufacturing industry of New York state which you have personally observed, and show how and where the product is disposed of.

2 Mention 10 different cities in the state of New York, one of which is noted for the manufacture of (a) knit goods, (b) starch, (c) carpets, (d) great guns, (e) beet sugar, (f) harvesting machines, (g) collars and cuffs, (h) gloves and mittens, (i) refined sugar, (j) steam fire-engines.

3 What city of New York was called the "Flour City"? What is the present condition of the milling industry in this state as compared with that of 25 years ago? Give *two* reasons for the change.

4 Give in order of importance the names of *five* states in the union that are noted for agricultural industries, *five* that are noted for mining industries.

5 Mention *five* important raw products of the United States and give the state or states where each is most extensively produced. Compare the production of each commodity mentioned with the world's production of the same commodity.

6 Describe a water-route from Duluth to New York city. What *two* commodities are most extensively shipped over this route and why?

7 Give an account of the cod-fishing and herring-fishing industries of the United States and compare them with the same industries in other countries.

8 Give a leading manufacturing industry of (a) Pennsylvania, (b) Massachusetts, (c) Illinois, (d) Connecticut, (e) Minnesota. What city is the chief center of each industry mentioned?

9 Give in detail *three* reasons for the development of international commerce during the 19th century.



10 Describe *two* possible routes for shipping cotton from Savannah to Yokohama.

11 Mention, with location, *five* leading ports of Great Britain and give an important article of export from each.

12 Give the name of a country of South America noted for the production of (a) wool, (b) coffee, (c) cane-sugar, (d) cacao, (e) nitrate of soda. Account for the extent of undeveloped land and the scarcity of manufactures in South America.

13 Give the location of *five* of the following canals, and the special reason for the construction of each Kaiser Wilhelm, Suez, Sault Sainte Marie, Manchester, Corinthian, North Holland, Cronstadt and St Petersburg.

14 Describe in detail the production and the preparation for market of *one* of the following: raw silk, cotton, tobacco.

15 Mention the most important food crop of Russia; the most important food export, the most important import from the United States. In what commodity does Russia control the markets of the world?

COMMERCIAL GEOGRAPHY

Thursday, June 18, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. Answers in excess of the number required will not be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Describe in full some productive industry in your vicinity of which you have made close personal observation, including the sale and distribution of the product.

2 Account for the commercial and financial importance of New York city, and compare its export trade with that of Boston.

3 Give *two* reasons for the marked progress in dairy-farming in the United States during the 19th century. What proportion of the cheese product of the United States is made in New York state? What state stands next to New York in cheese-making? What state leads in butter-making?

4 Give the location and mention a noted industry of *each* of the following New England cities: Manchester, Fall River, Lynn, Springfield, Waterbury, Bath, Hartford, Providence, Holyoke, Meriden.

5 Describe the great central plain of the Mississippi valley. Mention *five* agricultural products raised extensively in this region.

6 Give an account of the farming and fruit-raising interests of the Pacific states. Mention (a) the leading export product, (b) *five* fruits that are extensively sold in the United States.

7 Give the names of *five* colonies or dependencies of Great Britain, and mention *two* important products and an important commercial city of each.

8 Give an account of the coal-mining industry in the United States, including its by-products.

9 Mention the two leading manufacturing industries of Great Britain; *three* leading exports from Great Britain to the United States; *five* important imports from the United States to Great Britain.

10 Describe *five* important canals of the world, outside of the United States and show the important service performed by each.

11 Give the form of government and the prevailing language of *each* of the following countries: Holland, Brazil, France, Mexico, Japan, Spain, Germany, Belgium, Switzerland, Peru.

12 Mention *two* important agricultural products and *one* important manufactured product of France. Which of these products is not sufficient for home consumption? Give the names of *three* chief ports of France, with the location of each.

13 State in regard to China (*a*) size and population as compared with the United States, (*b*) *one* leading import from the United States, (*c*) *two* leading exports to the United States, (*d*) *two* important seaports.

14 Give, by comparison with a section of the United States, the approximate size of the Philippines. Mention *two* leading articles of export from these islands. Mention the staple food of the Filipinos and state how it is obtained.

15 Write about 150 words on the geographic, industrial and commercial importance of Germany as a nation. Comment on her internal communications.

HISTORY OF COMMERCE

Thursday, January 29, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. Answers in excess of the number required will not be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Explain the origin of commerce. Describe the earliest method of trading, and state if it still exists. What is money?

2 What people succeeded to the commercial supremacy of Phenicia, and what was the chief foundation of their commerce?

3 To what extent was Rome a commercial city? Give illustrative facts.

4-5 Define feudalism. Show the early effects of the feudal system on industries and commerce, giving at least *three* reasons. Show the later effects of this system on commerce and explain your answer.

6 Give an account of the Italian city republics. In what respect is the commercial world indebted to these city republics?

7 Write on the Hanseatic League, stating (a) the necessity for such a confederacy, (b) of what composed, (c) capital city, (d) effects on commerce, (e) power attained and influence on civilization.

8 Give an account of the industries and commerce of England during the Middle Ages.

9 How was commerce affected by the discovery of Vasco da Gama? To what country was this discovery of special value? Explain in detail.

10 Write an essay of at least 100 words on the currency of the Middle Ages.

11 Sketch the condition of Spain in the 16th century. What colonial policy did she pursue?

12 In what way did Colbert seek to improve the commercial condition of France? What was the result?

13 Describe the English commercial and economic policy which excited the opposition of the American colonists. What was the result of the disagreement?

14 Write on the commerce and industries of Germany since the last war with France.

15 Describe by name and location the territory added to the United States during the last decade of the 19th century. How has this addition of territory affected our commercial prospects? Explain.

College Department

11TH BUSINESS EXAMINATION

HISTORY OF COMMERCE

Thursday, June 18, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. Answers in excess of the number required will not be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Mention the two principal occupations of the early Egyptians. With what peoples was their earliest trading done? To what extent were the Egyptians a commercial people?

2 What facilities for exchanging merchandise existed in the far east at a very early period?

3 What was done by Augustus in the interests of commerce in the reorganized Roman Empire?

4 Give an account of the rise and growth of the Mohammedan Empire and mention *five* of its leading commercial cities.

5 Show the direct effects of the Crusades on the commerce of continental Europe and England.

6 Give an account of the development of Portuguese trade in the east and state the causes of its decline.

7 Describe the condition of the trade of the American colonies in the last half of the 17th century.

8 Outline the economic causes that induced the American colonies to rebel against England.

9 To what extent was the adoption of the federal constitution a commercial measure? Give reasons.

10 Describe the commercial "continental system" adopted by Napoleon, under the First Empire, 1804-14. What was the ultimate result?

11 Why did the United States first adopt a protective tariff?

12 State the commercial and economic causes of the American Civil War.

13 What *three* important events occurring in the same decade as the laying of the Atlantic cable tend to mark a new era in the world's commercial progress? Give reasons for your answer.

14 What is a reciprocity treaty? Mention *five* countries with which we formed reciprocity treaties in 1892.

15 Show in about 200 words what has been done toward the construction of an American isthmian canal.

College Department

9TH BUSINESS EXAMINATION

BUSINESS PRACTICE AND OFFICE METHODS**Wednesday, January 28, 1903—1.15 to 4.15 p. m., only**

Answer 10 questions but no more. Answers in excess of the number required will not be considered. Division of groups is not allowed. All accounts, bills and statements must be correctly ruled. Credits depend on accuracy of answers and neatness of papers. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 What is meant by the goodwill of a business and how should it be treated on the books of the purchaser of the business who has paid a stipulated sum for the goodwill?

2 What is the object of protesting a promissory note or other negotiable instrument which is not paid on proper demand? Describe the process of protesting. If you held John Doe's note without indorsement, given you in payment of a debt, would you protest the note for non-payment? Explain.

3 For what purpose are produce exchanges and other commercial exchanges established? Describe *two* different methods of buying and selling "on 'change."

The following questions are based on the paper in **advanced bookkeeping**:

4-5 Show the ruling and heading of bill books from which postings are made directly to the ledger. Enter as bookkeeper for Hazard & Bates the notes mentioned in the transactions of Aug. 12, advanced bookkeeping paper.

6 Write the notes made respectively by James B. Hazard and Hazard & Bates. Explain why, in the books of the firm, one of these notes is treated as a bill payable and the other as a bill receivable. What are these instruments in the hands of Parshall & Mauser? [See transactions Aug. 12.]

7 The note of Hazard is said to be "secured by mortgage on real estate." Show what this means and how the object is accomplished. What is the general term applied to this kind of security?

8 Write the certified check paid to Parshall & Mauser. Why was it certified? Who would have borne the loss if the Traders' National Bank had failed on account of insolvency to open its doors Aug. 13? Would your answer be the same if Parshall & Mauser had procured the certification? [Transactions Aug. 12.]

9 What is meant by shipping goods C. O. D.? Explain the process in detail. How would you keep the account of goods sold C. O. D.? [Transactions Aug. 14.]

10 Make out the invoice of Aug. 18.

11 Make out the bill for the goods sold Aug. 22.

12 Draw the New York draft mentioned in the transactions of Aug. 22, Traders' National Bank, H. G. Newfield, cashier, on Bank of Commerce.

13 Omitting all minor limiting conditions' usually printed on the blanks furnished by the company, make out the B/L (sometimes called railroad receipt or shipping bill) for the goods mentioned in the transactions of Aug. 18. Freight 15¢ a 100 lb. Add weight of 23 packing cases at 20 lb each.

14 Make out the railway company's bill to Hazard & Bates for freight shipped in accordance with question 13 of this paper.

15 Write up Hazard & Bates's bank pass book. All funds received have been deposited, except cash received for sundry sales Aug. 30, and all payments have been made by check. All the checks of Aug. 30 are outstanding. Show the amount standing to the credit of the firm. Would the check book of the firm show the same balance?

College Department

IITH BUSINESS EXAMINATION

BUSINESS PRACTICE AND OFFICE METHODS

Wednesday, June 17, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. Answers in excess of the number required will not be considered. Division of groups is not allowed. All accounts, bills and statements must be correctly ruled. Credits depend on accuracy of answers and neatness of papers. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 What course would you pursue in order to open a regular account at a bank? Show how you would make your first deposit, consisting of specie \$6.75, bank bills \$280, a bank check of \$192.42. What evidence of this deposit would you receive?

2 In writing a check on your bank, how would you fill out the line

Pay to the order of.....

if you wished (a) to draw cash for your own use, (b) to pay a note at your own bank, (c) to pay in cash the weekly wages of a number of regular employees, (d) to pay for a N. Y. draft?

3 In the purchase and sale of flour, grain, produce or other bulky commodities known to vary materially in quality and value, how is it determined, as between buyer and seller, whether the goods are up to the standard represented by the seller?

4-5 William Stephens, commission merchant, Chicago, buys for Star Milling Co. Rochester, five cars of wheat aggregating 2300 bushels, at a cost, including all charges, of 73¢ a bushel. The grain is shipped by Blue Line fast freight at 7¢ a 100 pounds. Make out all the papers necessary to enable the commission merchant to obtain his money immediately at the bank where he does his business.

The following questions are based on the paper in **advanced bookkeeping**:

6-7 Rule, with proper headings, a folio of a bills receivable book from which direct postings may be made to the ledger. Enter therein the draft on Spence & Cone. [See transactions Apr. 7.]

8 Explain in detail the procedure in shipping goods C. O. D. How would you keep the accounts of C. O. D. sales? [See transactions Apr. 13.]

9 Brown & Co. do their bank business with the Commercial National Bank of Buffalo, T. H. Gibson, cashier. How do they obtain the N. Y. draft that they send to Jones Bros.? Write out this draft (on Cotton Exchange Bank) properly signed. [See transactions Apr. 11 and Apr. 18.]

10 Write the draft on Spence & Cone, showing proper acceptance. What should be done by Brown & Co. when this draft is returned to them by the bank unpaid? Show the entry that should be made by their bookkeeper. In what book should it be made? [See transactions Apr. 7, 9 and 23.]

11 Make out in correct form the invoice of Jones Bros. [See transaction Apr. 11.]

12 Make out the bill for the goods sold Apr. 17.

13 Make out the check (favor J. S. Adams) for rent of store, paid Apr. 30. Show the stub of this check.

14-15 Write up the bank pass book of Brown & Co. All funds received have been deposited, except cash received for sales Apr. 30, and all payments have been made by check. All checks drawn Apr. 30, are outstanding. Show the amount standing to credit of the firm on bank pass book. Would the firm's check book show the same balance? Give reasons.

College Department

9TH BUSINESS EXAMINATION

BUSINESS ENGLISH

Friday, January 30, 1903—9.15 a. m. to 12.15 p. m., only

Answer questions 1-3 and seven of the others but no more. Answers in excess of the number required will not be considered. Division of groups is not allowed. Every letter is to be formally addressed to some person or firm and to be formally signed by the writer unless otherwise directed. All answers will be rated as to spelling, punctuation, capitalization and neatness, and also as to correct use of words, sentence structure, logical sequence of ideas, paragraphing and general intelligence. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-3 Write an essay of 350 to 600 words on the practical duties and qualifications of the modern bookkeeper. As a part of this essay describe clearly the books that you would recommend for a wholesale grocery business. Include in the list a cash-book having four money columns on each page of the folio, and show exactly how these columns should be used and the particular advantage of their use.

Or

Candidates taking the shorthand and typewriting course may write from 350 to 600 words on the duties, the education and other general and special qualifications necessary to the modern amanuensis in a business office, including a description of the apparatus and appliances which such an amanuensis should be able to use.

4 Write a letter of application in reply to the following:

WANTED—First class stenographer and typewriter.
Address, stating education, experience and salary,
E. H. T. Herald office.

5-6 Put the ideas suggested in the following paragraph into pure and correct English, giving a reason for each change made:

A corporation is a body consisting of usually several persons having power by law given to them to act like unto one person, and continued by a succeeding of new members. Public corporations are the kind which are only created for the public interest, as cities, towns, counties etc. Private corporations are set up wholly or partly for the personal aggrandizement of those who hold the shares, as railway corporations etc. Corporate bodys of which the members at discretion fill by appointment all vacancies accruing in their membership, sometimes are called close corporations. In the United States the power to be a corporation is a franchise which can only exist through the legislature. There are two distinct ways in which corporations may be called into being, first by specific grant and second by enactment of general laws.

The following questions are based on the paper in advanced bookkeeping:

7 Write as James B. Hazard, July 31, 1902, to George S. Bates such a letter as you would write under like circumstances to a trusted friend with whom you hoped to go into business. [See advanced bookkeeping paper, first paragraph.]

8 Write under date of Aug. 4 such a reply to Hazard's letter as you think Bates would write if he took a strong interest in Hazard's proposition and believed it possible to entertain that proposition. Ask some necessary questions about the proposed business and the capital required. [See question 7, this paper, and paragraph cited therein.]

9 Write Hazard's reply to Bates's questions as stated in his letter of Aug. 4. [See question 8, this paper.]

10 Draw up, in simplest form and language, articles of agreement for the copartnership formed by Hazard and Bates. [See advanced bookkeeping paper, first paragraph; also transactions Aug. 12.]

11 Write an attractive circular letter to be sent out by Hazard & Bates to customers of the old firm and to the trade generally. Mention the change in proprietorship and call attention to the long and favorable connection of Hazard with the business under the late firm. Write also, to accompany this circular, a letter signed by Parshall & Mauser, indorsing and recommending the new firm.

12 Hazard & Bates wish to buy a considerable bill of goods on best possible terms of L. Barker & Co. New York, who are not acquainted with the new firm but have had large dealings with the old. Write as H. & B. Aug. 13, a letter to Barker & Co. giving information as to the composition of the new firm. Give as references the old firm and the Traders' National Bank, Syracuse. [See advanced bookkeeping paper, first paragraph, and transactions of Aug. 18.]

13 Write the favorable reply of H. G. Newfield, cashier of the Traders' National Bank, to an inquiry from L. Barker & Co. New York, as to the soundness and reliability of Hazard & Bates. [See advanced bookkeeping paper.]

14 Write as Hazard & Bates to H. T. Willard, Dunkirk, Aug. 21, a letter mentioning the protest of Lester's note, and stating what you have done in relation to it. Give any information you possess concerning the maker of the note. [See advanced bookkeeping paper, transactions of Aug. 19 and 21.]

15 Write as Hazard & Bates in reply to letter of Willard, inclosing his second remittance. Cover in a courteous way all the matters relating to this transaction. [See transactions of Aug. 26.]

College Department

10TH BUSINESS EXAMINATION

BUSINESS ENGLISH

Thursday, March 26, 1903—1.15 to 4.15 p. m., only

Answer questions 1-3 and seven of the others but no more. Answers in excess of the number required will not be considered. Division of groups is not allowed. Every letter is to be formally addressed to some person or firm and to be formally signed by the writer unless otherwise directed. All answers will be rated as to spelling, punctuation, capitalization and neatness, and also as to correct use of words, sentence structure, logical sequence of ideas, paragraphing and general intelligence. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-3 Write an essay of 350 to 600 words giving your views on the tendencies of modern bookkeeping and mentioning any changes that have come to your notice. As a part of this essay state with exactness how you would change a set of books from single to double entry.

Or

Candidates taking the stenographers course may write from 350 to 600 words on what is expected of the modern amanuensis in a business office, including a description of the work that may be properly required and the apparatus and appliances necessary for the doing of such work.

4 Write the general description necessary to form a part of a policy of fire insurance, covering the household furniture and other effects in the house in which you live.

The questions given below are based on the following statement :

Chester Bridge, furniture manufacturer and dealer, Jamestown N. Y., has heard that George E. Traverse of Pittsburg Pa., with whom he has had many mutually satisfactory business transactions, has sold out his business interests. Bridge wants a partner and more capital to extend his business and lighten his work in the office, and as a result of negotiations opened by him, an equal and unlimited partnership is formed under the firm name of Bridge & Traverse, to continue the business at Bridge's old stand from Jan. 1, 1901.

Bridge invests: merchandise appraised at \$12,600; draft on James Archbold, \$1400, accepted payable at Traders' Bank, Jamestown, Jan. 5; note of B. P. Jordan, Troy N. Y. \$1250, due at Bridge's office Jan. 8. Bridge guarantees the payment of above paper, and the firm assumes payment of the following outstanding debts: note \$2000, due Coit & Co. Jan. 22; acceptance due Jan. 28 \$375. Traverse invests \$12,900. Following are some of the additional transactions of the month:

Jan. 1. Sold W. M. Paterson, Elmira goods amounting to \$1745.50. Terms, acceptance at 60 days.

Jan. 2. Bought of I. Butts & Co. Rochester, 24 #98 sofas @ \$25, \$600; 24 upright beds @ \$60, \$1440; 30 French mattresses @ \$18, \$540; 24 #6 dining tables @ \$12, \$288; total \$2868. Terms 3% off 10 days, net 60 days.

Jan. 5. Made claim on I. Butts & Co. for damages to upright beds and sofas, by breakage and marring \$72. James Archbold paid acceptance. Received W. M. Paterson's acceptance for invoice Jan. 1.

Jan. 8 Jordan's note due today was not paid. Telegraphed our eastern salesman, I. Seacum, at Albany, to attach any property owned by Jordan.

Jan. 10. Sold Smith & Carey, Ogdensburg, goods amounting to \$876.24. Terms 2% off 10 days, net 30 days.

Jan. 12. Sent I. Butts & Co. N. Y. draft for amount of invoice, less allowance for damage as claimed and discount 3% on bill.

Jan. 13. Telegraphed agent R. W. & O. R. R. at Ogdensburg to stop in transit the goods billed Jan. 10 to Smith & Carey, whose failure is reported.

Jan. 16. Sold Andrew Martin, Ogdensburg, at invoice price, less 5%, the goods billed Jan. 10 to Smith & Carey and afterwards stopped in transit. Terms, cash.

5 Write as Bridge to Traverse, Dec. 6, 1900, a letter of at least 200 words with a view to inducing Traverse to join in a partnership. [Use details from the first and second paragraphs of the statement.]

6 Write as Traverse to Bridge, Dec. 10, showing a disposition to favor the partnership, but asking such questions as would be natural under the circumstances.

7 Write two telegrams which you may suppose passed between Bridge and Traverse about the middle of December, and brought Traverse to Jamestown.

8-9 Draw up, in simplest form and language, articles of agreement for the partnership between Bridge and Traverse, and show the proper execution thereof.

10 Write under date Dec. 29, 1900, the letter of Paterson, explaining why he asks for a credit of 60 days. Write also the reply of Bridge & Traverse. [See transaction of Jan. 1.]

11 Write the letter to I. Butts & Co. required by the transactions of Jan. 5. State somewhat in detail the nature of the damage.

12 Write an attractive circular letter to be sent out by Bridge & Traverse to old customers and to the buying trade generally.

13 Write the telegram to I. Seacum. Write also, the letter of Seacum reporting the details of a compromise proposed by Jordan, and reporting also that there is nothing attachable. [See transactions Jan. 8.]

14 Write under date of Jan. 10, the letter of I. Butts & Co. which led to the remittance of Jan. 12. Write also the letter of Bridge & Traverse inclosing the remittance.

15 Write the telegram mentioned in the transaction dated Jan. 13. Write also the letter of D. Elkins, R. R. Agent, in reply to this telegram. [See transaction of Jan. 16.]

College Department

IITH BUSINESS EXAMINATION

BUSINESS ENGLISH

Friday, June 19, 1903—9.15 a. m. to 12.15 p. m., only

Answer questions 1-3 and seven of the others but no more. Answers in excess of the number required will not be considered. Division of groups is not allowed. Every letter is to be formally addressed to some person or firm and to be formally signed by the writer unless otherwise directed. All answers will be rated as to spelling, punctuation, capitalization and neatness, and also as to correct use of words, sentence structure, logical sequence of ideas, paragraphing and general intelligence. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-3 State in an essay of 350 to 600 words the principal qualifications of a bookkeeper for a commercial or manufacturing business. As a part of this essay describe clearly the books that should be used for a wholesale or jobbing house. State also how you would keep the cash account and the bank account, and what special columns you would use in any of the books.

Or

Candidates taking the amanuensis course (and not the business course) may write from 350 to 600 words on the education and qualifications needed by the amanuensis in a business office, including the work that may justly be required and a description of such apparatus and appliances as are needed in the work.

4-5 Put the ideas suggested in the following paragraph into pure and correct English, giving a reason for each change made:

Bank clerks and others who have money to handle are usually required to give bonds, that is, they must get some person to go their suretyship, thus guaranteeing faithful service, and agreeing to make good any losses caused by defection or carelessness. There are surety companies that give bonds for everyone and anyone who they consider a "good risk" upon the payment of certain premium as in insurance. The amount required by the bond depends upon the importance of the position. The bonds of personal friends have a good deal of moral weight and force always and for this reason are considered superior to a guarantee company. Such a bond is a testimonial and is the last that he would be likely to violate.

6 Make an application by letter for the place advertised below:

WANTED—Young man (or woman) to take charge of the amanuensis work in a commercial office. Address, stating age, education, experience and salary, AMANUENSIS, Tribune office.

The following questions are based on the paper in **advanced bookkeeping**:

7 Write as Brown to Alling, March 10, 1903, in reply to a letter that Alling is supposed to have written you about forming a partnership in Buffalo. State what stock of goods you carry, value of furniture and fixtures and capital required to put the business on a first class basis. Mention a third man, an experienced accountant, with capital, who is willing to join the firm. [See first paragraph.]

8 Write under date of March 16, two letters of Alling, one to Brown and one to Embler, suggesting a plan for carrying on the proposed business so that each partner shall have his special line of work. [See first paragraph.]

9-10 Draw up without superfluous words or phrases articles of agreement for the firm of Brown & Co., showing proper execution of the document. [See first paragraph.]

11 Write an attractive circular to be sent out by the new firm of Brown & Co.

12 Write, April 6, to Jones Bros. Boston, a letter of Brown & Co., asking lowest prices and most favorable terms on a line of goods wanted immediately. Give reference and ask prompt reply. [See transaction April 11.]

13-14 Write a letter of Jones Bros. April 8, to Commercial National Bank, Buffalo, T. H. Gibson, cashier, inquiring as to the financial standing and general reputation of Brown & Co. Write the cashier's answer to Jones Bros. which should be full and complete as to its information. [See first paragraph.] Write, April 9, the reply of Jones Bros. to Brown & Co.'s letter. [See transaction April 11.]

15 Write a letter of Brown & Co. April 23, to Spence & Cone in relation to non-payment of acceptance. Write also a letter of Spence & Cone, giving an acceptable reason for failure to pay their paper. [See transactions April 7, 9 and 23.]

College Department

9TH BUSINESS EXAMINATION

BUSINESS WRITING

Friday, January 30, 1903—1.15 to 4.15 p. m., only

Answer all questions. Credits for 1-5 and 6 depend on speed, legibility, accuracy and neatness; for the others on legibility, accuracy and neatness, without reference to speed. All answers must be written with pen and ink. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Write the selection given out as the first test [225 words to be written in 15 minutes; work then to be collected by the examiner].

6 Write the figures in the manner required by the second test [600 figures to be written in 10 minutes; work then to be collected by the examiner].

7-10 Write the following business papers and letters:

[PROMISSORY NOTE]

\$4000.#

Syracuse N. Y. Aug. 12, 1902

Six months after date, for value received,
I promise to pay *Hazard & Bates*.....or Order
Four thousand #..... $\frac{00}{100}$ Dollars
With interest, at Traders' National Bank.

JAMES B. HAZARD

[BANK CHECK]

Syracuse N. Y. Aug. 12, 1902 No. 45

TRADERS' NATIONAL BANK

Pay to the order of *Parshall & Mauser*.....\$8000
Eight thousand #..... $\frac{00}{100}$ Dollars

HAZARD & BATES

[BANK DRAFT]

TRADERS' NATIONAL BANK

Syracuse N. Y. Aug. 22, 1902 No. 75

Pay *Hazard & Bates*.....or Order \$1949.70
Nineteen hundred, forty-nine..... $\frac{70}{100}$ Dollars
To Bank of Commerce }
New York } *H. G. NEWFIELD, Cashier*

[BILL OF INVOICE, 1]

No. 407 Page 59

New York, Aug. 18, 1902

HAZARD & BATES

Syracuse N. Y.

Terms: $\frac{3}{5}$ n/30Bought of L. BARKER & CO. Dealers in Cocoa,
Chocolate, etc.

500 1-pound cans B. cocoa	@ 48¢	\$240
500 boxes B. chocolate 6000 lb	" 27¢	1620
5000 lb P. tapioca	" 3¢	150

\$2010

N. Y. S. & B. R. R.

[BILL OF INVOICE, 2]

Syracuse N. Y. Aug. 22, 1902

HAZARD & BATES, Wholesale Grocers.

SOLD to H. T. Willard, Dunkirk N. Y.

Terms: $\frac{2}{5}$ n/30

10 half chests Japan tea	750 lb @ 35¢	\$262.50
5 " F. O. tea	300 lb " 51¢	153
10 " M. Y. H. tea	700 lb " 28¢	196
3 bags ice-cream salt	" 75¢	2.25
3 bbl. H. W. starch	480 lb " 6 $\frac{1}{2}$ ¢	31.20

\$644.95

[BILL OF LADING]

N. Y., SYRACUSE & BUFFALO RAILWAY CO.

New York, Aug. 18, 1902

RECEIVED from L. Barker & Co. in apparent good order:

Marked or consigned	Description of property	Weight subject to correction
<i>Hazard & Bates</i> <i>149 Main st.</i> <i>Syracuse N. Y.</i>	1 case cocoa 520 12 " chocolate 6120 10 " tapioca 5100	11,740
Freight per 100 lb to Syracuse 15¢		

As described above, contents and value unknown to be transported over this railway to its warehouse in Syracuse ready to be delivered at said warehouse to the consignee or owner. This company will not be responsible as common carriers for any loss or damage to said property after its arrival in warehouse aforesaid.

M. T. TRACKTON, Agent.

[FREIGHT BILL]

Date of W. B., *Aug. 18, 1902*

W. B. No. 8176

Syracuse N. Y. *Aug. 21, 1902***HAZARD & BATES**

To N. Y., SYRACUSE & BUFFALO R. R. CO. Dr.

For transportation from *New York* to Syracuse:

	Weight	Rate	Amount
1 case cocoa	520		
12 " chocolate	6120		
10 " tapioca	5100		
	11740	.15	\$17.61

Car No. 26,781

Received payment

E. R. FRANCIS, Agent.

Syracuse, July 31, 1902

George S. Bates

Houghton Mich.

My dear George: I haven't been writing much of late, but now I have something to say, and it is something good. My old firm Parshall & Mauser have got rich enough, and they both want to retire from the cares of business and enjoy a quiet life. Now, I know the business from A to Z and I know just what it is doing. It pays handsomely. Both partners have a very kindly feeling toward me and would like to see me their successor. They would give me a bonanza deal and long time if I could buy them out; but I haven't money enough to swing it. You know it has been the wish of my life since our school days that you and I should be associated in business; but those mines that your father left you have kept us apart. What do you say to coming back to the old state? I think we could buy everything including "Goodwill" for \$16,000 and pay half cash.

How does it strike you? Think it over quick and give me an indication.

Yours

JIM

Houghton Mich. Aug. 4, 1902

James B. Hazard

149 Main st., Syracuse N. Y.

Dear Jim: I can certify to the truth of the opening clause in your letter of July 31, and I do not hesitate to say that your news has proved very interesting. The thought of being associated with you in a promising business gives me a thrill of real pleasure; for I will confess that I am pining for my native state and my old friends.

It is a happy coincidence that your letter reaches me at a time when negotiations for the sale of my mining property are in quite an advanced stage. If the transaction goes through, the syndicate will form a corporation and I shall get a good bit of money and a large block of stock, and be personally entirely freed from the management.

Let me know at once how much capital will be required of me, and give me some idea of the volume of business, and how much you expect it to pay annually.

Yours as ever

GEORGE

These tests go to candidates at the beginning of the examination. They are speed tests, and the time must be exact.

ALL WRITING MUST BE DONE WITH PEN AND INK

FIRST TEST

225 words to be written in 15 minutes; work then to be collected by the examiner.

The rice belt of southern and central Louisiana and southeastern Texas extends from the Mississippi to the Brazos. It is four hundred miles long and varies in width from twenty to fifty miles. In this belt modern ideas and systematic methods attend the culture of the grain from seed-time till it leaves the field to be sorted and made ready for the market. Water flows on the shoots when a few inches above ground and the roots are continuously submerged till early autumn. Every acre is a great sponge absorbing about 15,000 gallons daily, yet when the grain nears maturity, and the water is drained from it, evaporation is so rapid that in a few days the farming machines can pass over the fields without difficulty.

The tendency toward economical and intensive farming is everywhere apparent,—the question is not how many acres can be cultivated, but how much an acre can be made to yield. The greatest economic factor, however, is the wonderful subterranean sea which underlies the soil of this belt and which, scientists say, contains an inexhaustible water supply. A most extensive pumping system has been constructed and five hundred separate pumping plants have been distributed throughout the district. For one fifth of the yield, a rice-farmer can secure from the irrigation company all water needed for the season.

SECOND TEST

600 figures to be written in 10 minutes; work then to be collected by the examiner.

Copy the following line of figures 20 times, preserving the regular spaces between the groups so that the work shall stand in perpendicular columns, as if for adding [All the groups must be on one page]:

7118 5 843927601 96 35720 204 639584

College Department

IITH BUSINESS EXAMINATION

BUSINESS WRITING

Friday, June 19, 1903—1.15 to 4.15 p. m., only

Answer all questions. Credits for 1-5 and 6 depend on speed, legibility, accuracy and neatness; for the others on legibility, accuracy and neatness, without reference to speed. All answers must be written with pen and ink. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Write the selection given out as the first test [225 words to be written in 15 minutes; work then to be collected by the examiner].

6 Write the figures in the manner required by the second test [600 figures to be written in 10 minutes; work then to be collected by the examiner].

7-10 Write the following business papers and letters:

[TIME DRAFT]

\$356.85

Buffalo N. Y. Apr. 7, 1903

Fifteen days after date pay to the order of

Commercial National Bank.....

Three hundred, fifty-six..... $\frac{85}{100}$ Dollars

Value received and charge to account of

BROWN & CO

To Spence & Cone

Dunkirk, N. Y.

[BANK CHECK]

Buffalo N. Y. Apr. 30, 1903 No. 24.

COMMERCIAL NATIONAL BANK

Of Buffalo

Pay to the order of *J. S. Adams*.....\$87.50

Eighty-seven..... $\frac{50}{100}$ Dollars

BROWN & CO.

[INVOICE]

Boston Mass. *Apr.* 11, 1903*Messrs BROWN & CO.**Buffalo N. Y.*

Bought of JONES BROS. Dealers in Drygoods

Terms: $\frac{2}{10}$ $\frac{n}{60}$

6 pc. 40, 43, 45, 42, 46, 40=256 yd. fancy gingham @ $6\frac{1}{4}\phi$	\$16.64	
8 pc. 52, 47, 49, 51, 45, 52, 48, 47=391 yd. fine Eng. serge @ \$1.37 $\frac{1}{4}$	537.63	
10 doz. men's Balbriggan half-hose @ \$5.50	55	
		\$609.27

[BANK DRAFT]

Buffalo N. Y. *Apr.* 18, 1903 No. 8695

COMMERCIAL NATIONAL BANK

Pay to the order of *Brown & Co.*.....\$597.08*Five hundred, ninety-seven*..... $\frac{8}{100}$ DollarsTo Cotton Exchange Bank }
New York }*T. H. GIBSON*, Cashier

Buffalo, March 10, 1903

Mr Walter T. Alling

New York N. Y.

Dear Sir: In reply to your recent letter it gives me pleasure to say that I am quite willing to entertain the proposition to enlarge my business by taking a partner. I note that you have \$2000 in cash to invest, and realize that the offer of a liberal line of credit by the house you have so long represented would be a great advantage to us. It would be practically the same as an enlargement to that extent of the capital in hand.

At the present time I have a stock of salable goods that cost something over \$3200, office furniture worth about \$200, and could probably turn in \$500 in cash. Let me say further that I have a friend in Buffalo, Mr John Embler, who would, I think, like to go into business for himself. He is bookkeeper for a

manufacturing company and has saved his money. I believe he would like to join us in this enterprise, and if agreeable to you I should be pleased to have him come in. He would invest from \$3000 to \$5000. This would enable us to put the business on an easy footing. Can you not come up soon and talk the matter over?

Very truly yours

Robert Brown

New York, March 16, 1903

Mr Robert Brown

Buffalo N. Y.

Dear Mr Brown: Returning to the city I find your letter of the 10th, which is very satisfactory. It seems to me that we are making progress. It is a happy thought of yours to ask Mr Embler to come into the business. It would give us all the capital we need, and make just the right sort of working force to carry on the business comfortably. You would naturally take general charge of the store, Mr Embler is just the man to take care of the accounts, while I could utilize my favorable acquaintance with the trade by spending a large part of my time on the road.

It seems that what we need now is to get together and agree on details, in case it should appear on personal inspection that we all feel satisfied to cast in our lots together. So, if it is agreeable to you and Mr Embler, I will meet you on Thursday evening next at the Hotel Del Monte and will remain in the city as long as circumstances may require.

Very truly yours

W. T. Alling

These tests go to candidates at the beginning of the examination. They are speed tests, and the time must be exact.

ALL WRITING MUST BE DONE WITH PEN AND INK

FIRST TEST

225 words to be written in 15 minutes; work then to be collected by the examiner.

The term goodwill can hardly be said to have any precise signification. Briefly stated it is the advantage or benefit which is acquired by an establishment, beyond the mere value of capital or property employed therein, in consequence of the general public patronage and encouragement. This patronage is received from constant or habitual customers, on account of the local position of the business, common celebrity, reputation for skill, affluence, punctuality, or from various other accidental circumstances. Thus, the goodwill of a public house, instead of being incident to the premises alone, attaches to the name by which these premises are known. The goodwill of a newspaper is annexed to the title under which the paper is published, and manufacturers find their goodwill dependent on the reputation acquired by the quality of their product and by their methods of dealing, all of which may come to be represented by a trade-mark.

The general tendency of the law, under the present broad interpretation of the term, is to treat goodwill itself as property. It is regarded as proper subject-matter for a sale or bequest and is often regarded as an asset in forming a partnership or in adjusting a case in bankruptcy. When a business of recognized reputation is offered for sale, the goodwill is usually as much a matter for consideration as any commodity.

SECOND TEST

600 figures to be written in 10 minutes; work then to be collected by the examiner.

Copy the following line of figures 20 times, preserving the regular spaces between the groups so that the work shall stand in perpendicular columns, as if for adding [All the groups must be on one page]:

936597 42 83710 9 367204158 811 4206

College Department

9TH BUSINESS EXAMINATION

TYPEWRITING

Thursday, January 29, 1903—9.15 a. m. to 12.15 p. m., only

Answer all questions. All answers except to questions 5-6 must be typewritten. Credits depend on neatness and accuracy. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Write on a typewriter the selection dictated as the first test [150 words to be dictated in three minutes, the work then to be collected by the examiner].

3-4 Copy on a typewriter the selection assigned as the second test [105 words to be copied in three minutes, the work then to be collected by the examiner].

5-6 Rewrite the following in longhand, making all necessary corrections and putting the statements into good English:

The forein commers of this country do not bare so hie a portion to its poplasun as its industrys do, For the reson that their is few comodaties; ether stuffs to eat, rough matterials for manufacturies, or made up goods, witch are not prodeuced in this Country; So that their is not but small ocasion for purchaseing goods derivated from forein sorces: Hens, our imports are much less than large. being simply 8 per cent of the totle imports of all country's.

As to exsports, we have first to suply our own poeple, and it is the surplisce only witch is sold to others. That surplisce is nearly double yet what the imports is; The ballance of trad largly and continyusly being in hour faver. Our exsports are comonly 15 per cent of the totle of the whole of the countrys. Tho only a small fracture of our products are soled a brod, prehaps not moren ten per cent, still our exsports are larger than thoes of any other country. slitley excedeing even thoes of Great Britans.

7 Write in proper form an answer to the following advertisement, showing the address as it would appear on the envelop:

Wanted—An expert typewriter. Give qualifications and references. Address C. H. Osborne, 928 Winter st. Philadelphia.

8 What special attention should be given each day to the typewriting machine when in constant use? How often should it be oiled? What cleaning should be done by the operator?

9 Your employer, J. H. Hoadley, gives you a bill from Johnson & Co. Jamestown, for 6 Morris chairs @ \$18.50, 9 box couches @ \$34.25, 3 brass bedsteads @ \$45.50. Write this bill duly receipted. Draw check on Commercial Bank and send it with a courteous letter to the firm.

10 Explain in detail the process of duplicating typewritten work to the extent of (a) three to eight copies, (b) 50 or more copies.



TYPEWRITING TESTS

These tests are not to be placed in the hands of the candidates till the work in dictation has been finished and collected by the examiner.

FIRST TEST

150 words to be dictated in three minutes, the work then to be collected by the examiner.

MINUTES

The climate of California is often called semi-tropic. But the strongest resemblance between this state and the tropics $\frac{1}{2}$ is found in the fact that * in both places the mercury usually stands above the freezing-point. By rights it should be called the temperate state, although that word has been * so much abused that we can not use it. But whatever we $\frac{1}{2}$ may call it, the simple fact remains that it is the Land of * the Golden Mean. It is as tonic as Maine, yet without pneumonia; as fertile as Panama, yet free from equatorial $\frac{1}{2}$ fevers. The plant life of * New England and of Peru flourish almost side by side and in each case the average yield $\frac{1}{2}$ is better. The north has flavor but lacks productiveness; * the tropics have productiveness but not flavor. The Golden State has both, and is as kind to men and women as to $\frac{1}{2}$ fruits and flowers. *

SECOND TEST

105 words to be copied in three minutes, the work then to be collected by the examiner.

Success is an expansive word; its meaning grows with the individual; its basic principle does not change, but with each step up it is measured by higher standards, and is ever taking on a larger meaning.

Men do not generally look far into the future; few think out a definite plan of what they intend to accomplish in life. Some seem to be hardly conscious that they are successful. They know they are doing larger things, but the standards by which they measure success keep moving up, and they press on to this higher mark with hope and faith that they may yet attain success.

College Department

TENTH BUSINESS EXAMINATION

TYPEWRITING

Wednesday, March 25, 1903—9.15 a. m. to 12.15 p. m., only

Answer all questions. All answers except to questions 5-6 must be typewritten. Credits depend on neatness and accuracy. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Write on a typewriter the selection dictated as the first test [150 words to be dictated in three minutes, the work then to be collected by the examiner].

3-4 Copy on a typewriter the selection assigned as the second test [105 words to be copied in three minutes, the work then to be collected by the examiner].

5-6 Rewrite the following in longhand, making all necessary corrections and putting the statements into good English:

The vally of the upper Amazon and its confluence produse of rubber one of the finest grade. The resent fenominal growth of the rubber traid have operated to create a poplar intrest in the vally of the Amazon, and will leed to a rappid developement of its wonderful recourses.

Some two hundred years ago sientific men of India, given to reserch and investigate, discover a process for produceing a comercial comodity from the cream rising onto the top of the milk from the rubber tree, and the name India rubber still clings. Since the jenius of Goodyear founded a thousen different uses for this rubber, its wonderful comercial value has stedaly incresed in the number of uses and values. Clotheing, boots and shoes; belting and hundreds of usful articals, they are made from the vulcanised production, while of the hard or vulcanyte is made buttons, ink wells, penholders, and inumerable other uses.

7 Give the names of *five* important parts of a typewriting machine and describe the work done by each of these parts. [Give the name of machine described.]

8 Mention *two* methods of making and filing copies of outgoing letters. Describe one of these methods in full.

9-10 Write in correct form the following business papers: (a) an invoice received from Johnson & Johnson, drygoods merchants, containing at least five items, (b) your note at 30 days in full payment of above invoice, (c) your draft at 10 days on Philip Haynes for \$225, in favor of Howard Ross, properly accepted, (d) your check on Mechanics & Farmers' Bank for \$516.48 in favor of John Derby.



These tests are not to be placed in the hands of the candidates till the work in dictation has been finished and collected by the examiner.

FIRST TEST

150 words to be dictated in three minutes, the work then to be collected by the examiner.

MINUTES

The short supply of coal during the first half of the present winter is sure to increase the anxiety which for ½ some years has called for new means * of obtaining heat for household purposes. A recent article gives an interesting description of the efforts made by the New York state 1 electrician * to secure a supply of heat from an electric lighting plant.

A single wire extends from his front porch to the supply ½ wire of the company, * and through this he obtains all the light and heat required in his household. The wire is 2 carried to a switchboard in the library, * and from this center the supply of electricity for all purposes, including cooking, is easily controlled. Heaters resembling black ½ boxes on marble bases, * are placed in the different rooms, and each room, or all the rooms at once, can be heated to 3 any temperature that comfort or convenience requires. *

SECOND TEST

105 words to be copied in three minutes, the work then to be collected by the examiner.

Venezuela has a larger area than the combined areas of the great states of Texas, Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Oklahoma, and Arkansas. In figures its area amounts to nearly 590,000 square miles. The population is 500,000 less than that of Massachusetts. In 1891 it was 2,323,527. Caracas, the capital, has 75,000 inhabitants, Maracaibo 35,000, La Guaira 15,000, and Barcelona about 13,000. About one person in every hundred is pure white, while the others are descendants of black slaves, mulattoes and Indians

College Department

IITH BUSINESS EXAMINATION

TYPEWRITING

Thursday, June 18, 1903—9.15 a. m. to 12.15 p. m., only

Answer all questions. All answers except to questions 5-6 must be typewritten. Credits depend on neatness and accuracy. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Write on a typewriter the selection dictated as the first test [150 words to be dictated in three minutes, the work then to be collected by the examiner].

3-4 Copy on a typewriter the selection assigned as the second test [105 words to be copied in three minutes, the work then to be collected by the examiner].

5-6 Rewrite the following in longhand, making all necessary corrections and putting the statements into good English:

The prosperity of Western farmers effects materially the good times of the country at large. It keeps the railroads prosperous, it having given them lately a unprecedented volume of traffick both ways, this prosperity of the railroads are in turn very widely distributed. on almost every line in the country there has been advances to the pay of employees recently; Increased earnings have justified the roads in making extensive improvements, that have gave employment to many unskillful laborers. furthermore the immense volume of traffick is obligating all the roads to by more injians and cars, thus bring a increase of busness to the establishments for manufacture of roleing stock and railroad supply. It is easy to see how this prosperusness of the farmers and the people which directly or indirectly serve the railroad sistum must extension its self to the textil industrys of the East and to the manufactures and trayed jeneraly.

7 Give in detail the *two* principal processes of manifolding. Mention a third method of obtaining copies of typewritten matter. State the number of copies that can be obtained by each method.

8 Explain in a letter to a friend *two* methods of filing business letters received and copies of outgoing business letters. State the method that you prefer, giving reasons.

9-10 Your employer George Walters, Newburg, has received from Ward & Howe, Rochester, 50 bbl. flour @ \$4.50, 10 cases, 120 pkg. breakfast food @ 11¢. Write in proper form (a) the invoice from Ward & Howe, (b) a letter claiming damage of \$1.12 on one case of breakfast food, (c) sight draft on James Wilcox, Rochester, in favor of Ward & Howe for \$237.08, (d) your employer's check on Commercial Bank of Newburg in favor of Phillips & Co. for cartage on above goods \$2.25 [Show the stub of this check].

These tests are not to be placed in the hands of the candidates till the work in dictation has been finished and collected by the examiner.

FIRST TEST

150 words to be dictated in three minutes, the work then to be collected by the examiner.

MINUTES

When goods are shipped from place to place, whether by sea, lake, canal or railway, it is customary for the carrier $\frac{1}{2}$ of the goods * to issue to the owner or shipper a signed paper known as a bill of lading. This document, which begins like a receipt, is in fact * a contract between the shipper and the carrier, though it often happens that the $\frac{1}{2}$ paper is signed only by the carrier or his agent. * Another party to the bill, though not directly a party to the contract, is the person to whom the goods are shipped, known as the 2 consignee. * He must receive the goods within the time mentioned in the bill and pay freight as stated. The bill $\frac{1}{2}$ of lading has some of the qualities * of a negotiable instrument. An indorsement of the bill by the owner of the 3 goods will vest title in the holder of the bill. *

SECOND TEST

105 words to be copied in three minutes, the work then to be collected by the examiner.

Although New York has suffered a commercial decline, she has been rapidly gaining, as a money center, on the other great cities of the world. This is shown by the enormous increase in her banking business. The loans of New York banks doing business through the clearing house increased from \$420,406,000 in 1889 to \$780,607,700 in 1899. The combined gold holdings of New York banks are more than twice those of the Bank of England and equal those of the Bank of France.

College Department

64TH LIBRARY EXAMINATION

ELEMENTARY BIBLIOGRAPHY

Friday, December 19, 1902—9.30 a. m. to 12.30 p. m., only

Answer questions 2-3 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 crédits. Papers entitled to 75 or more crédits will be accepted.

1 What *five* bibliographies of bibliography are most suitable as a first selection for an American library?

2-3 Describe from the standpoint of practical value to the librarian *two* of the following bibliographies: (a) *either* Grässe, *Trésor de livres rares et précieux*, or British Museum—Library, *Catalogue of Printed Books*, (b) *either* Watt, *Bibliotheca Britannica*, or Quérard, *La France littéraire*.

4 Describe (a) British Museum—Library, *List of Bibliographical Works in the Reading Room*, (b) Whitney, *Catalogue of the Bibliographies of Special Subjects in the Boston Public Library*.

5-6 Compare fully the *Bookseller* with the *Publishers' Weekly* and mention *three* similar publications of other countries.

7 Compare briefly the following: *American Catalogue*, Kayser's *Vollständiges Bücher-Lexikon*, Lorenz's *Catalogue général de la librairie française*.

8 Compare the national bibliography of England with that of Germany in respect to period covered and exhaustiveness of record.

9 Give the meaning of the following bibliographic descriptions [Dictionaries may be used if desired]:

hrsg. v. Jos. Kürschner. (Neue Ausg.) m. 1273 Abb. gr. 4. (v, 436 S.) Berlin 897. Geb. in Leinv. n. 12. —

Erschien auch in 20 Hftn. à n. — 50.

in —4. de 4 ff. à 2 col. de 32 lig., caract. rom., une fig. en bois au prem. f. .

pet. in —4. de 22 ff. sans chiffres, récl. ni signat.

Venet. 1765. in —fol. obl. 18 pl. gr. en taille-douce p. C. Vallet. (12sh. Bohn.)



10 Give the meaning of the following bibliographic descriptions [Dictionaries may be used if desired]:

2 part. en 1 vol. in — fol. (8 ff. non ch. 116 et 53 ff. ch. (le dernier est coté 55), 1 f. bl. 22 fr. La Vallière. 11 fl. 50 c. Meermann. 4th. Weigel.

9. —16. Jahrg. 1882-1889. Im Auftrage der Red. bearb. v. R. O. Weber. gr. 4. (III, 70 S.) 890. geb. u. durchsch. n. n. 7.50.

(In ca. 60 Lfgn.) 1. —10. Lfg. Lex. —8. (1. Bd. S. 1 —92 m. Abbildgn. u. 16 Portr. — Taf.) Ebd. 890.

11-15 Five questions will be assigned to test skill in using bibliographies.

NOTE—Use reference books. Hand in with answers a list of all reference books used, in the order used. If you wish to consult a book not in the room, ask the examiner for it.

Classified Index to the Library Journal, v. 1
 1887, gr. J. L. Christman, '93; C. S. Hawes,
 1895

College Department

66TH LIBRARY EXAMINATION

ADVANCED BIBLIOGRAPHY

Wednesday, March 25, 1903—9.30 a. m. to 12.30 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 What books should be consulted in making a select bibliography of music?

2 Mention 10 or more books that should be consulted in ordering \$100 worth of books on American history.

3 What books should be consulted in ordering \$50 worth of medical books for a public library?

4 Mention and compare *three* bibliographies of reading for the young.

5 Compare Adams's *Manual of Historical Literature* and Larned's *Literature of American History* as aids in selecting historical books for a general library.

6 Mention and compare *two* valuable catalogues of scientific periodicals.

7 What helps should be used in selecting fiction for a public library?

8 Describe fully a subject bibliography (not used in answering any other question on this paper) with which you are familiar through personal use.

9 Mention the author of a good bibliography of (a) the Bible, (b) architecture, (c) municipal government, (d) the classics, (e) genealogy, (f) forestry, (g) geographical books, (h) mining, (i) charities, (j) periodicals.

10-12 Select *five* books on the Philippine islands that would be of great value in a public library.

13-15 Select *five* books on socialism that would be of great value in a public library.



College Department

66TH LIBRARY EXAMINATION

ACCESSION DEPARTMENT WORK

Wednesday, March 25, 1903—2.30 to 5.30 p. m., only

Answer questions 1-2, 3-4 or 5-6 and six of the others but no more. If more than six of the others are answered only the first six answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Enter *seven* volumes (to be assigned) on condensed accession sheets, using *Library School Rules*.

For questions 3-7 write on the back of order slips the titles of reference books used.

3-4 Make out order slips for the following *four* books:

Hyde, Story of Early Gaelic Literature.

Wilkins, Jane Field.

Sudermann, Das Glück im Winkel.

Sainte-Beuve, Nouveaux lundis.

5-6 Make out order slips for the following *four* books:

Whitmore, Municipal London.

Jewett, Deephaven.

Heyse, Francesca von Rimini.

Coppée, Toute une jeunesse.

7 Make out order slips for the following *two* books:

Ibsen, Fru Inger til Østeraad.

Amicis, Alle Porte d'Italia.

8 What method of checking current serials do you consider best? Why? Why is it desirable to check current serials if they are catalogued "to date"?

9 Mention several methods by which a public library can dispose of its duplicates.

10 What is the present attitude of the American Publishers' Association concerning discounts to libraries?

11 Which of the following items do you consider essential in the accession book of a small library: author, title, accession number, class number, book number, source, paging, publisher, cost, binding, volume number?

12 Which of the following supplies do you consider essential in the accession department of a small library: embossing stamp, perforating stamp, book plate, accession book, order slips, gift list, serial check list, book labels?

13 Describe the order index of the New York State Library and state its practical use. What is the value of the receipt index?

14 Should a library keep every book or pamphlet that comes to it by gift? Should it acknowledge every gift? Give reasons for your answer in each case.

15 Write an order letter for the books mentioned *either* in questions 3-4 *or* in questions 5-6.

College Department

66TH LIBRARY EXAMINATION

SHELF DEPARTMENT WORK

Friday, March 27, 1903—2.30 to 5.30 p. m., only

Library School Shelf List Rules, Cutter's Author Tables, Shakspeare Scheme and Time Number Scheme may be used in the examination.

Answer questions 1-5 and five of the others but no more. If more than five of the others are answered only the first five answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Assign 20 book numbers according to the instruction of the New York State Library school, class numbers, authors and titles being given.

3-5 Make 20 shelf list entries (the necessary facts being assigned), using cards.

6 Shelf list one set of periodicals (the necessary facts being assigned), using 10x25 cm shelf sheets.

7 Assign as for a popular library 10 book numbers (the necessary facts being given).

8-9 In starting a library what in general would be your basis of arrangement under each class number? Should you depart from this basis for certain classes? Answer fully, giving reasons.

10 Mention *five* cases in which special book numbers are used in the New York State Library, giving reasons for each case.

11 Do you consider a shelf list an essential library record? Give reasons.

12 Is it desirable to close a library when taking inventory? Explain.

13-14 What differences should you advocate in the acquisition and treatment of pamphlets in a large historical library and in a popular town library?

15 Describe a good method of caring for pictures and photographs in a library.



College Department

66TH LIBRARY EXAMINATION

ELEMENTARY CATALOGUING, part I

Thursday, March 26, 1903—2.30 to 5.30 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

The following helps may be used: *Boston Athenæum Catalogue, Peabody Catalogue, Webster's Dictionary, Lippincott's Gazetteer, A. L. A. Subject Headings.*

Give all the entries necessary for *five* of the following books, specifying the author entry and mentioning also the *See* and *See also* references suggested by the subjects. Do not select two books under the same number.

- 1 Sayce, *Fresh Light from the Ancient Monuments.*
- 2 Greely, *Explorers and Travellers.*
- 3 Ballard, *Among the Moths and Butterflies.*
- 4 Godkin, *Unforeseen Tendencies of Democracy.*
- 5 (a) Doggett, *History of the Doggett-Daggett Family*; or, (b) Binney, *History and Genealogy of the Prentice or Prentiss Family*; or, (c) Lee, John Leigh and His Descendants of the Name of Lee.

6 Johnson, *History of the French War.*

7 Houghton, Mifflin and Co., *Catalogue of Authors.*

Answer *two* of the following three questions:

8 State the chief advantage of (a) the dictionary catalogue over the classed catalogue, (b) the classed catalogue over the dictionary catalogue.

9 What is the difference between the treatment of literature in a classed catalogue and in a dictionary catalogue, e. g. American poetry?

10 Mention *five* changes that you would consider it desirable to make for the *Library School Card Catalogue Rules*, in cataloguing for a popular library.

Answer *three* of the following five questions in accordance with the *Library School Card Catalogue Rules*:

11 What should be the difference between the treatment of *two* stories published in one volume with a common title page, and of the same stories published separately and bound in one volume?

12 Mention *four* cases in which a name reference is required.

13 How many cards should be made for a book classed in 821, having a general subject reference 016.821? Describe each card and tell how each one should be arranged.

14-15 State fully the rules for the cataloguing of (a) local history, (b) genealogy.

College Department

67TH LIBRARY EXAMINATION

ELEMENTARY CATALOGUING, part 2

Tuesday, June 16, 1903—2.30 to 5.30 p. m., only

Answer questions 1-3 and seven of the others but no more. If more than seven of the others are answered only the first seven answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

Library School Rules, Decimal Classification and special book number schemes may be used in the examination.

1-2 Catalogue, as for the New York State Library, Beacon Biographies, 1v. Give call numbers. Reference books but not name list may be used.

For questions 3-15 indicate all entries instead of cataloguing in full; e. g.

Main author card under Smith, Samuel

“ subject “ 875.1

Added entry editor card under Brown, Oliver

Analytic author “ Duffield, Francis

Indicate use of red ink headings and colored cards.

Use of reference books is allowed but full names and dates are not required.

3 Essays on Tennyson's Idylls of the King; *or*, Studies in the Idylls; *or*, Growth of the Idylls of the King.

4 Romola.

5 History of Ridgefield; *or*, History of Meriden; *or*, Reminiscences of Taunton.

6 Men of the Bible, 1v.

7 Finding List of the Free Public Library, Jackson, Mich.

8 Scott, Black Dwarf and Montrose; *or*, Surgeon's Daughter and Castle Dangerous.

9 Story of Goethe's Life.

10 Beowulf.

11 Gibbon, Autobiography.

12 Rantoul Family; *or*, Slocums, Slocumes and Slocombs of America; *or*, Child, Childs and Childe Families.

13 Insect Life, 1v.

14-15 Bibliography of Fine Art.



ADVANCED CATALOGUING

Thursday, March 26, 1903—9.30 a. m. to 12.30 p. m., only

Library School Card Catalogue Rules and a German lexicon may be used in the examination.

Answer questions 1-3 and seven of the others but no more. If more than seven of the others are answered only the first seven answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-3 Draw up your plan for cataloguing *one* book under *each* of the following groups:

a American Monthly Magazine [Three pieces]; *or*, Atlantic Magazine [Two pieces]; *or*, Evangelical Magazine [Two pieces]; *or*, Igdrasil, Ruskin Reading Guild [Two pieces].

b Catalogue of Charts and Other Publications of the United States Coast and Geodetic Survey; *or*, Catalogue of the Library of the United States Naval Observatory; *or*, Descriptive Catalogue of Publications Relating to the United States Coast and Geodetic Survey; *or*, House Documents, v. 66.

4 Revise and rewrite, with special reference to penmanship, *one* card (to be assigned).

5 Translate into English (using a dictionary if desired) titles (to be assigned).

6 Mention *two* points of substantial agreement in 10 cataloguing codes.

7 What American cataloguing code resembles most closely the British Museum Cataloguing Rules? Characterize this American code.

8 Make some general comparisons between cataloguing usages in Continental libraries and those in American libraries.

9 Outline the scheme used in the New York State Library for the cataloguing of photographs.

10 What is meant by the term indirect criticism? Mention the various forms of indirect criticism and indicate the treatment of each.

11 State the principle of the card catalogue and mention *five* other forms of the card catalogue besides that in drawers.

12-13 Make out an order for cataloguing supplies appropriate for a public library of 15,000 volumes. [Two reference books may be used in answering this question.

14-15 Reply in detail to the following inquiry: "How long will it take and how much will it cost to catalogue our school library of 1800 volumes? We want everything done simply and with strict regard to economy."

College Department

65TH LIBRARY EXAMINATION

DICTIONARY CATALOGUING

Saturday, February 28, 1903—9.30 a. m. to 12.30 p. m., only

Answer questions 1, 2 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

The following helps may be used: *Boston Athenæum catalogue*, *Peabody catalogue*, *Webster's Dictionary*, *Lippincott's Gazetteer*, *A. L. A. subject headings*.

1 Describe and illustrate the method of cataloguing codices of the Bible and works about them.

2 Give several methods of cataloguing genealogic works. State which method you prefer and why.

Give all the entries necessary for *eight* of the following books, specifying the author entry and mentioning also the *See* and *See also* references suggested by the subjects. Do not select two books under the same number.

3 (a) United States Geological Survey, Monographs, v. 7; *or*, (b) United States Geological Survey, Monographs, v. 31.

4 (a) Cathcart, War in Russia and Germany; *or*, (b) Sperry, History of 33d Iowa.

5 (a) International Columbian Naval Rendezvous; *or*, (b) Gettysburg National Park Commission Report, 1893-99.

6 (a) Morris, Austral-English; *or*, (b) Morris, Theology of the Westminster Symbols.

7 (a) Shakspeare, Measure for Measure; *or*, (b) Thorndike, Influence of Beaumont and Fletcher on Shakspeare.

8 (a) Yearbook of Scientific and Learned Societies, 1897; *or*, (b) Journal of American Ethnology, v. 1.

9 (a) Lee, Trial of Virtue; *or*, (b) Clark, Questions on Harmony of Gospels.

10 (a) Whitaker, Directory of Titled Persons; *or*, (b) Wheeler and Halsey, Inscriptions in Burying Grounds of First Presbyterian Church.

11 (a) Meehan, Irish Franciscan Monasteries; *or*, (b) Newman, Difficulties of Anglicans.

12 (a) Gibbings, Index Expurgatorius; *or*, (b) New York Southern Society, Catalogue of Garden Library.

13 (a) Atlantic Monthly Index; *or*, (b) Donaldson, Indians.

14 (a) Lee, Conspectus of Pharmacopoeias; *or*, (b) Bate, Pharmacopoeia Bateana.

15 (a) Massee, Plant Diseases; *or*, (b) Buffalo High School, Collection of Hymns.



College Department

63D LIBRARY EXAMINATION

ELEMENTARY CLASSIFICATION

Monday, November 17, 1902 — 2.30 to 5.30 p. m., only

The following books may be used as helps: Dewey's *Decimal Classification*, Webster's *Dictionary*, Lippincott's *Gazetteer*, Lippincott's *Bibliographical Dictionary*.

Answer questions 12-15 and six of the others but no more. If more than six of the others are answered only the first six answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

Give class numbers for the following subjects, carrying them down as far as possible; also explain the significance of the class numbers, e. g.:

914.21 = travel in London

9 = history

1 = travel

4 = Europe

2 = England

1 = London

1 History of coinage in Scotland. Legislative handbook and manual of the state of Washington.

2 Two centuries of the First Baptist Church in South Carolina. Bibliographical catalogue of the publications of the Century Co.

3 Historical and critical bibliography of French periodicals. Statistical year book of the Grand Duchy of Baden.

4 Life of Moses. History of slavery in Maryland.

5 The fauna of Victoria. History of the constitution of the Empire of Japan.

6 Dictionary of the English and Danish languages. Report of the Boston Public Library.

7 A Dutch Bible. The silva of Chautauqua lake.

8 Assyrian grammar. Atlas of Long Island N. Y.

9 Life of Pestalozzi. History of Trinitarian congregation-alism in Concord Mass.

10 History of the public school system of California. Woman in the pulpit.

11 Life of St Francis of Assisi. Annual report of the Board of Health of Wisconsin.

Assign class numbers and references (if necessary) to the following books:

- 12 Webster, First Bunker Hill Oration.
- 13 Custer, Boots and Saddles.
- 14 Arkansas, Biennial Report of the Auditor of State.
- 15 Wisconsin, Biennial Report of the Free Library Commission.

College Department

67TH LIBRARY EXAMINATION

ADVANCED CLASSIFICATION

Tuesday, June 16, 1903 — 9.30 a. m. to 12.30 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

For questions 3-4 the *Belgian Classification Scheme* may be used; for questions 3-15 the following books may be used: Dewey's *Decimal Classification*, Cutter's *Expansive Classification*, Webster's *Dictionary*, Lippincott's *Gazetteer*, Lippincott's *Biographical Dictionary*.

1 Describe the Library of Congress Classification of Bibliography, including field covered, minuteness of division, method of notation.

2 Outline methods for the subdivision of history in the *Expansive Classification*, stating the alternative notations proposed and their comparative advantages.

Classify the following subjects according to the general principles of the Belgian modifications of the *Decimal Classification* as proposed by the Institut International de Bibliographie:

3 Early legal history in Chaucer's *Canterbury Tales*. Observations at Tripoli on the eclipse of the sun, May 1900. Battles of the British navy, 1190 to 1840.

4 Early Spanish architecture in Mexico. Regulations enforced by the Holy See with respect to mixed marriages. German workingman's insurance system.

Classify the following books by both the *Decimal Classification* and the *Expansive Classification*:

5 Jarves, *The Art Idea*.

6 Latham, *Cotton Movement and Fluctuations*, 1894 to 1899.

7 Sturgis, *Homes in City and Country*.

8 Gladden, *The Cosmopolis City Club*.

9 Shaler, *The Interpretation of Nature*.

10 Hill, *Twenty Years at Sea*.

11 Herbart, *A B C of Sense-perception*.

12 U. S., Education, Bureau of, *Report on Introduction of Domesticated Reindeer into Alaska*.

13 Abbott, *Waste-land Wanderings*; or, *A Naturalist's Rambles about Home*; or, *Upland and Meadow*.

14 Gaullieur, *Paternal State in France and Germany*; or, Kovalevsky, *Russian Political Institutions*; or, Cunningham, *Swiss Confederation*.

15 Chilovi, *La Scuola Rurale la sua Biblioteca*; or Stubmann, *Der Warenverkehr zwischen Holland und dem Deutschen Hinterland*; or, Pierre, *Traité de Droit Politique Electoral et Parlementaire*.

College Department

67TH LIBRARY EXAMINATION

INDEXING

Friday, June 19, 1903—2.30 to 5.30 p. m., only

Papers entitled to 75 or more credits will be accepted.

Index the *Outlook*, May 17, 1902, p. 143-92, making the entries you think desirable for the index to the bound volume. Do not mark the book. Make entries in proper form on v. slips, giving page references. Do not arrange slips alphabetically, but hand in in order of entry.

UNIVERSITY OF THE STATE OF NEW YORK

1003

Price

College Department

67TH LIBRARY EXAMINATION

FOUNDING AND GOVERNMENT

Thursday, June 18, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 What is Mr Carnegie's plan of giving public libraries? State the advantages and disadvantages of his plan. Mention some of his most important gifts.

2-3 Describe the Carnegie Library campaign in Albany in 1902.

4-5 Discuss the following question: Should the tax supported public library lead or follow public demand in the selection of books?

6 Describe what seem to you the right relations between the press of a city and its public library.

7 State *six* or more arguments that you would use in urging a board of trustees to open a children's room.

8 What are the essential qualifications for success in library work?

9 Mention *five* ways in which trustees may be elected. State some of the objections to a self-perpetuating board.

10 Discuss the question of public access to the librarian.

11-12 Describe fully the work of the New York State Home Education Department.

13 Give a brief sketch of library institutes.

14-15 Mention and characterize very briefly 10 of the most useful books in library economy.

College Department

66TH LIBRARY EXAMINATION

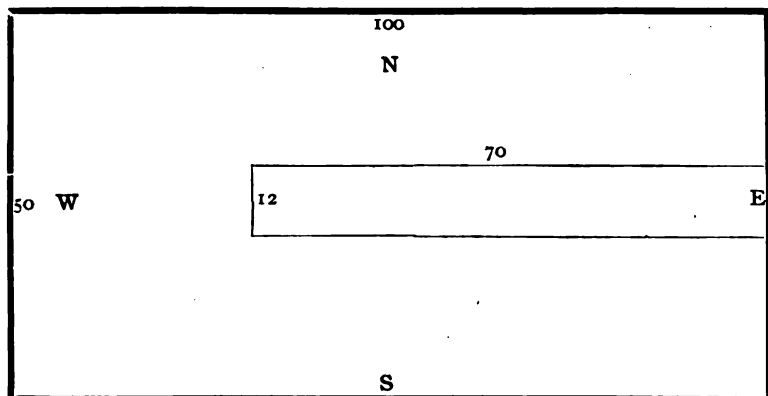
LIBRARY BUILDINGS

Friday, March 27, 1903—9.30 a. m. to 12.30 p. m., only

Answer questions 1-3, 4-8 and two of the others but no more. If more than two of the others are answered only the first two answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-3 Criticize a set of plans (to be assigned).

4-8 In a village of 3000 population, plans are being drawn for a town hall. The public library is to occupy a part of the main floor. The building has a front of 50 feet facing east and is 100 feet deep with light on all sides. From the center of the front a passage 12 feet wide, running back 70 feet, is to be partitioned off. The location of other partitions and of doors has not been determined. The windows are 3 feet from the floor, 4 feet wide, and 4 feet apart. The ceiling is 15 feet high.



The library has 3000 volumes and is adding 300 volumes a year. The librarian has no assistants. What room or rooms will be needed?

Draw an outline of the building to scale, making no allowance for thickness of walls. Locate the library room or rooms, giving reasons for choice.

Show partitions and doors. Arrange all needed cases and furniture. Calculate total capacity of shelves and number of readers provided for, giving all figures used in calculation.

9-10 Describe in detail the shelving you would choose for 5000 volumes in the book room of a public library not admitting the public to the shelves. State material, dimensions, extent, plan of arrangement and variations needed in case of public access. Draw diagram.

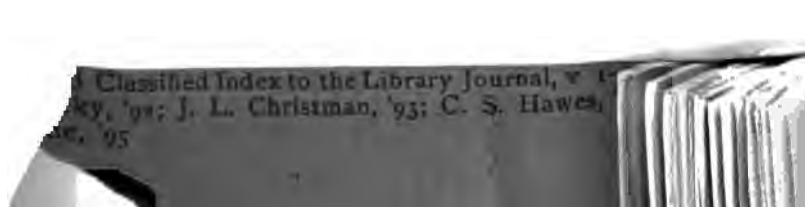
11 Describe methods of obtaining overhead natural light in a library building. State conditions that require such light and the advantages and disadvantages of different methods.

12 In what respects do the building conditions of a city branch library differ from those of the average village library of equal size?

13 In a city branch library with three stories of nearly equal size, without elevator, which floor should be used for (a) the adult delivery room, (b) the children's department, (c) the adult reading-room? Give reasons.

14 What special features are important in a building for a college library?

15 State some general principles affecting the successful grouping of library departments.



College Department

67TH LIBRARY EXAMINATION

LOAN DEPARTMENT WORK AND
BOOK-BINDING

Thursday, June 18, 1903—2.30 to 5.30 p. m., only

Answer questions 11-12, 13, two others on binding and five on loan department work but no more. If more than seven of the others are answered only the first seven answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

LOAN DEPARTMENT WORK

1-2 Compare in tabular form the processes of the Newark and Browne loan systems.

3 What is the object of a reader's card carried by the reader? What are its disadvantages?

4 What are the strong points of the Schwartz loan system? What is its one weak point? [Answer these questions without describing the system in detail.]

5-6 Give the main features of the New York State Library system, the Columbia and Boston Athenaeum systems. Compare the three systems. [A detailed description is not desired.]

7-8 State in full the plan of the illustrated bulletin that you expect to submit. Explain its scope, and show how the books chosen, the illustrations and the entire treatment, including details, seem to you to fit the class of readers for whom the bulletin is intended.

BOOK-BINDING

9-10 Describe in outline the process of binding a book. [Minute detail is not desired.]

11-12 Describe fully the bindings of 10 books (to be assigned), indicating materials of both sides and back, and any peculiarities of binding.

13 Fill out binding slips for *five* books (to be assigned).

14 Compare *three* important binding materials as to cost and durability.

15 Give some general directions for the mending of books by library assistants.

College Department

67TH LIBRARY EXAMINATION

HISTORY OF LIBRARIES AND PRINTING

Wednesday, June 17, 1903—9 30 a. m. to 12. 30 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 State briefly what is known of ancient Greek and Roman libraries.

2 Describe the library facilities of the Middle Ages.

3 Give an account of the printing and binding done at the Aldine press in Italy. For what was this press specially notable?

4 Mention the various processes used in book illustration and describe fully any *two* of the processes mentioned.

5-6 Compare the relative value, for the use of scholars, of the national libraries of England, France and the United States

7 What *two* types of libraries prevail in northern Europe (Belgium, Holland, Denmark, Norway, Sweden and Russia)? Give a brief account of the national library at St Petersburg and state its relative size.

8 Compare present library conditions in Italy and Switzerland.

9-10 Compare the university libraries of England with the college and university libraries of the United States.

11 Mention *two* good reference books on printing, *three* on book binding, *two* on book illustration, *one* on English university libraries, *one* on the history of libraries in general.

12 Give a summary of the present copyright law of the United States.

13-14 Mention in approximate order the men who have acted as presidents of the A. L. A. and specify the lines in which each has been of service.

15 Mention the most important library events of the year 1902.

College Department

67TH LIBRARY EXAMINATION

REFERENCE.

Wednesday, June 17, 1903—2.30 to 5.30 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Mention *four* important general cyclopedias. Describe in some detail *one* of the cyclopedias mentioned.

2 Describe and estimate Adams's *Dictionary of English Literature*.

3 State the scope and value of Fergusson's architectural histories.

4 Judged from the standpoint of usefulness in a reference library, what is the best all round reference book in the field of religion? Give reasons.

5 Characterize the following works and give briefly the scope of each: (a) Hamersley, *Naval Encyclopedia*, (b) Hone, *Every day Book*, (c) *Standard Dictionary of the English Language*, (d) Plötz, *Epitome of Ancient, Mediaeval and Modern History*, (e) Kroeger, *Guide to the Study and Use of Reference Books*.

6 Mention *one* good history of *each* of the following literatures: German, French, Scandinavian, Spanish, Italian, American, Greek, Latin.

7 Mention and characterize briefly *five* periodicals of special value to the student of science.

8 Mention and compare in some detail *four* books of quotations and proverbs.

9 Mention and compare *two* constitutional histories of England.

10 Characterize briefly Oliphant's *Literary History of England in the End of the 18th and the Beginning of the 19th Centuries*, Taine's *History of English Literature* and Morley's *English Writers*.

11 Mention the *three* different forms in which genealogies appear. Illustrate each form by a specific example.

12 What *four* English reviews have American reprints? How do the American scholarly literary reviews compare with

the English reviews? What English magazines correspond to Scribner's, Harper's and the Century magazine?

13 Mention a useful reference book on *each* of the following subjects: engineering, American politics, hymnology, commerce, medicine, music, insurance, heraldry, Norman Conquest of England, Greek and Roman antiquities.

14 Give the scope of Parkman's historical works and state their value as reference books.

15 What book or books should you consult for information concerning the following: (a) what was the amount of the national debt of Great Britain in 1894? (b) what is a Cullen rifle? (c) what important event occurred July 27, 1794? (d) tables of radii of railway curves, (e) comparison of the mortality of men and women.

College Department

67TH LIBRARY EXAMINATION

REFERENCE AND SELECTION OF BOOKS

Friday, June 19, 1903—9.15 a. m. to 12.15 p. m., only

Answer questions 1-3 and seven of the others but no more. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

ADVANCED REFERENCE

1-2 State fully the principles that should underlie satisfactory reference work. Illustrate fully and specifically from your own practical experience at the reference desk of the New York State Library.

3 Show how familiarity with current events fits into reference work. Illustrate.

SELECTION OF BOOKS

4-5 Criticize and estimate *two* important books that you have read that belong to the Selection of Books course, choosing one discussed in 1901-02 and one discussed in 1902-03.

6-7 Distinguish between the purely scientific conception of history and the theory that history should be both a science and an art. Illustrate by historical works that exemplify the different theories. Show to what classes of readers the works mentioned are appropriate.

8-9 What helpful ideas on the selection of books in fine arts did you get from the lectures of Mr C. A. Cutter and Prof. H. H. Powers?

10 Mention some of the community interests that should be borne in mind in selecting books on religion for the average public library.

11 Compare *The Strenuous Life* with *The Simple Life*; or, *Making of an American* with *Up From Slavery*; or, the nature books of Thompson-Seton with those of W. J. Long.

12-13 What effects may be expected from a wide reading of
(a) *John Halifax, Gentleman* and fiction of the same type,
(b) *The Eternal City* and fiction of the same type?

14 To what classes of readers should you recommend the following books: (a) *Varieties of Religious Experience*, (b)

Democracy and Social Ethics, (*c*) Miss Pritchard's Wedding Trip, (*d*) Life of John William Walshe, (*e*) Rebuilding of Old Commonwealths, (*f*) Evolution of Immortality, (*g*) Fireside Sphinx, (*h*) Heroines of Fiction, (*i*) Study and Criticism of Italian Art, (*j*) American Business Woman.

15 Give an estimate, based on a 15 minute examination, of a book (to be assigned) of which you have no previous knowledge. Answer by filling out a librarian's book note outline.

College Department

67TH LIBRARY EXAMINATION

FRENCH—First Year

Tuesday, June 16, 1902—9.15 a. m. to 12.15 p. m., only

Credits will be given for neatness, good arrangement and general appearance of answer papers. Papers entitled to 75 or more credits will be accepted.

Translate into English:

a

LE ROI DES MONTAGNES

Le personnage le plus intéressant de notre colonie était sans contredit John Harris, l'oncle maternel du petit Lobster. La première fois que j'ai dîné avec cet étrange garçon, j'ai compris l'Amérique. John est né à Vandâlia, dans l'Illinois. Il a respiré en naissant cet air du nouveau monde, si vivace, si pétillant et si jeune, qu'il porte à la tête comme le vin de Champagne, et qu'on se grise à le respirer. Je ne sais pas si la famille Harris est riche ou pauvre; si elle a mis son fils au collège ou si elle l'a laissé faire son éducation lui-même. Ce qui est certain, c'est qu'à vingt-sept ans il ne compte que sur soi, ne s'attend qu'à soi, ne s'étonne de rien, ne croit rien impossible, ne recule jamais, croit tout, espère tout, essaye de tout, triomphe de tout, se relève s'il tombe, recommence s'il échoue, ne s'arrête jamais, ne perd jamais courage, et va droit devant lui en sifflant sa chanson. Il a été cultivateur, maître d'école, homme de loi, journaliste, chercheur d'or, industriel, commerçant; il a tout lu, tout vu, tout pratiqué et parcouru plus de la moitié du globe.—*About*

b

SCHILLER

La première fois que j'ai vu Schiller, c'était dans le salon du duc et de la duchesse de Weimar, en présence d'une société aussi éclairée qu'imposante. Il lisait très bien le français, mais il ne l'avait jamais parlé: je soutins avec chaleur la supériorité de notre système dramatique sur tous les autres; il ne se refusa pas à me combattre, et, sans s'inquiéter des difficultés et des lenteurs qu'il éprouvait en s'exprimant en français, sans redouter non plus l'opinion des auditeurs, qui était contraire à la sienne, sa conviction intime le fit parler. Je me servis d'abord, pour le réfuter, des armes françaises, la vivacité et

la plaisanterie; mais bientôt je démêlai, dans ce que disait Schiller, tant d'idées à travers l'obstacle des mots; je fus si frappée de cette simplicité de caractère, qui portait un homme de génie à s'engager ainsi dans une lutte où les paroles manquaient à ses pensées; je le trouvai si modeste et si insouciant dans ce qui ne concernait que ses propres succès, si fier et si animé dans la défense de ce qu'il croyait la vérité, que je lui vouai dès cet instant une amitié pleine d'admiration.

—*Mme. de Staël*

c

MA NORMANDIE

Quand tout renaît à l'espérance,
Et que l'hiver fuit loin de nous;
Sous le beau ciel de notre France,
Quand le soleil revient plus doux;
Quand la nature est reverdie,
Quand l'hirondelle est de retour,
Je vais revoir ma Normandie,
C'est le pays qui m'a donné le jour.

J'ai vu les champs de l'Helvétie
Et ses chalets et ses glaciers.
J'ai vu le ciel de l'Italie
Et Venise et ses gondoliers;
En saluant chaque patrie,
Je me disais: "Aucun séjour
N'est plus beau que ma Normandie,
C'est le pays qui m'a donné le jour."

Il est un âge dans la vie
Où chaque rêve doit finir,
Un âge où l'âme recueillie
A besoin de se souvenir;
Lorsque ma muse refroidie
Aura fini ses chants d'amour,
J'irai revoir ma Normandie,
C'est le pays qui m'a donné le jour.—*Frédéric Bérat*

College Department

76TH EXTENSION EXAMINATION

NATURE STUDY

Saturday, December 20, 1902 — Three hours only

Answer questions 8 and 12 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Use drawings to illustrate where practicable. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

Submit with the answer papers notebook and list of material collected.

1 State (a) the object of nature study, (b) the manner in which nature study differs from the study of the several sciences, (c) the number of excursions that you have made, (d) the number of lectures or exercises that you have attended, (e) the number and titles of books that you have used, (f) the titles of the three books that you have found most helpful.

2 Give, with reference to animal life observed, a full account of an excursion. [Describe at least *one* animal as to (a) habitat, (b) method of locomotion, (c) method of obtaining food, (d) method of protection.]

3 Give, with reference to plant life observed, a full account of an excursion. [Describe at least *one* plant as to (a) habitat, (b) morphology of the leaf, (c) method of obtaining nutriment, (d) method of protection.]

4 Give, with reference to physiographic features observed, a full account of an excursion.

5 Describe and make a drawing of *one* of the following twigs: horse chestnut, American elm, hickory, balm of Gilead.

6 Describe structure, habits and life history of *two* of the following: frog, grasshopper, bumblebee, butterfly.

7 Compare the germination and early growth of the bean with that of Indian corn.

8 Give an outline of a lesson on *one* of the following flowers: violet, jack-in-the-pulpit, Claytonia.

9 Give in detail the life history, haunts and habits of a bird that you have studied.

Or

Give an account of your study of bacteria. Discuss the application of the principles of bacteriology.

10 Describe fully the inflorescence and method of pollination of *three* of the following: willow, violet, geranium, Indian corn, Claytonia, wild aster, skunk-cabbage.

11 Outline a typical lesson on fruits, using the apple or some other fruit to illustrate.

12 Give an outline of a lesson on the butterfly or on the crayfish.

13 Give illustrations of (a) communal life among animals, (b) zonal distribution of plants, (c) plant communities. State how these topics may be made to appeal to children.

Or

Compare the structures of the skeletons of *two* mammals that you have studied.

14 Mention *two* methods by means of which self-pollination is prevented in perfect flowers. Give examples.

15 Describe several methods of seed dispersal. Give suggestions for making a lesson on seed dispersal interesting to children of primary grade.

College Department

77TH EXTENSION EXAMINATION

THE ENGLISH DRAMA

Saturday, May 23, 1903—Three hours only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Compare the Greek drama with the medieval English drama in respect to (a) origin, (b) structure, (c) content.

2 Give an account of the York cycle of mystery plays, covering (a) description and plan of cycle, (b) manner of presentation, (c) period during which they were acted, (d) mode of revision and preservation, (e) evidence they afford concerning the life and tastes of the age.

3 Give an account of the morality *Everyman*, covering its (a) source, (b) plot, (c) dramatic effectiveness.

4 Mention *three* characteristics of early English comedy, illustrating by examples from the mystery (miracle) plays and from *Ralph Roister Doister*.

5 State reasons for the belief that Seneca's dramas were the model for *Gorboduc*, pointing out the similar characteristics in the two.

6 Give characteristics which tend to prove or disprove the statement that the chronicle plays were directly dependent in development on the mysteries and moralities.

7 State with some detail the service of university bred men in the modernization of the medieval English drama, making clear any influence from literature other than English.

8 For what reasons was the city of London opposed to the theater during the century following 1550?

9 Write on the following: the Globe theater, location, description, customs and audience.

10 Give an account of the mask, touching on (a) origin, (b) use in England, (c) points of resemblance to tableaux and drama, (d) rank as a form of literature.

11 Give *three* characteristics that mark a decadent drama as illustrated by the successors of Shakspeare.

12 Coleridge said on one occasion, "I think *Oedipus Tyrannus*, *The Alchemist*, and *Tom Jones* the three most perfect plots ever planned." Discuss the above statement with reference to *The Alchemist*.

13 It is said that *The Duchess of Malfi* lacks the breadth which comes from concentration upon a master motive. Prove or disprove the above criticism by a discussion of the plot of the drama.

14 Give *three* plot elements that contributed to the discomfiture of Sir Giles Overreach and show that the preparation for their introduction was adequate or inadequate.

15 Does sentiment or sentimentality predominate in Ford's *The Broken Heart*? Establish your position by a discussion of the play.

College Department

77TH EXTENSION EXAMINATION

DRAWING

Saturday, May 23, 1903—Three hours only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Drawings may be in pencil, crayon, charcoal, pen and ink or water-colors. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Draw *three* trees, each of different species. Write the names underneath.

2 Select a subject for a lesson in geography and draw several illustrations that you might use in teaching the lesson.

3 Illustrate at least *two* of the following sentences for a primary reading lesson: (a) The hat belongs to John, (b) The vase rests on the table, (c) The cat is called puss, (d) The house stands on the hill, (e) A bear is a fierce animal.

4 Give general directions for making a picture in black and white on the blackboard.

5 Sketch in outline a picture in which is found the following principle: a circle seen in any position except directly opposite the eye, appears elliptic.

6 Illustrate three or more phases of the growth and development of some plant. Write the name of the plant underneath.

7 Draw one or more of the following: a frog, a butterfly, a grasshopper, a bird, a fish.

8 Illustrate the following:

Shut in from all the world without,
We sat the clean winged hearth about,
Content to let the north wind roar
In baffled rage at pane and door.

9 Select a quotation, other than the one given in question 8, and illustrate it.

10 Explain the difference between shade and shadow.

11 Use the following elements in the composition of a picture: a road, a lawn, shrubbery, a house, sky, trees. [Additional elements may be used if desired.]

12 Why is it an advantage to model an animal before drawing it?

13 What is aerial perspective?

14 Mention the colors that must be used to preserve the so called "balance of color" in a picture.

15 Copy fig. 1, enlarging at least one fourth.



FIG. 1

College Department

78TH EXTENSION EXAMINATION

GENETIC PSYCHOLOGY

Saturday, June 20, 1903—Three hours only

Answer eight questions but no more. If more than eight are answered only the first eight answers will be considered. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

1 Discuss briefly the intelligence of the lower animals, showing the dangers of error in inferring intelligence through their actions and giving results of observations on ants and bees.

2 Give an account of primitive man, touching on (a) interchange of ideas, (b) growth of the arts of life, (c) beginnings of religious beliefs, (d) beginnings of political life.

3 Mention five leading methods of child study now employed in this country and state their advantages and disadvantages.

4 Discuss briefly the social problem connected with physically defective children.

5 Give a brief account of the development of the special senses in the new-born child, showing the value of the muscular sense for knowledge.

6 Write on the emotions, showing (a) stages in their development, (b) influences modifying them, (c) their effects.

7 Give a psychologic analysis of observation. Mention the characteristics of a child's observation, and state what qualities of an object interest children of different ages.

8 Give the psychologic origin and the development of imitation and state its educational value.

9 Explain the difference between reproductive imagination and creative imagination. Give in regard to the imagination (a) lines of special development, (b) practical value.

10 Mention the conditions on which memory depends and discuss its cultivation.

11 State what is meant by good conduct and explain why conduct is relatively good or bad. Mention the qualities that modify a child's conduct.

12 Characterize the crimes of childhood, giving the psychologic basis of each one mentioned.

13 Describe the successive stages in the development of the religious life.

14 Write briefly on the growth of language in infancy.

15 Discuss the pedagogic problems connected with number work.

and Classified Index to the Library Journal, v 1-
sky, '93; J. L. Christman, '93; C. S. Hawes, '
ic, '95

College Department

PUBLICATIONS

Examination Department reports 1894-97. O. 75c a vol.

Till 1894 these reports formed part of the general University reports, known as the Regents reports. They cover courses of study in secondary schools, examination of professional students, licensing examinations for physicians, dentists, veterinary surgeons and certified public accountants.

Continued in 1898 as reports of College and High School Departments.

See also 1123.

Examination Department bulletins 1895-98. O. *Continued as College and High School Department bulletins.***B4 (Examinations 1) Regents Examinations.** 82p. Nov. 1890. 10c.

Historical sketch, laws, ordinances and rules pertaining to all examinations conducted by the Regents; details as to all University credentials; subjects, times and places of examinations 1891-95; notes on the reorganization of 1890.

B5 (Examinations 2) Academic Syllabus. 174p. Ap. 1891.
*Replaced by X8.***B10 (Examinations 3) Medical Syllabus.** 30p. Oct. 1892.
*Replaced by X7.***B13 (Examinations 4) Law Syllabus.** 120p. Mar. 1893. *Out of print.*
Outline of ground covered by examinations for the Regents degree of bachelor of laws.**B23 (Examinations 5) Report of Examination Department 1893.**
82p. Feb. 1894. 10c.**X6 Report of Examination Department 1894.** 126p. Mar. 1895. 15c.**X7 Medical Syllabus.** 128p. Mar. 1895. 25c.

Outline of ground covered by state licensing examinations, prepared under direction of state boards of medical examiners for guidance of candidates.

X8 Academic Syllabus. 204p. June 1895. *Replaced by X24.***Syllabus of Form Study and Drawing.** 30p. 32pl. 25c.

Reprint of p.410-44d and plates from X8, *Academic Syllabus 1895*, replaced by X24.

X9 Report of Examination Department 1895. 108p. Feb. 1896. 15c.**X10 Examination Papers 1896.** 502p. Oct. 1896. 50c; *small size uniform with previous volumes 25c, boards 50c.*

See also Question papers.

X11 Davis, W: M. (Harvard) State Map of New York as an Aid to the Study of Geography. 28p. Nov. 1896. 5c.

Based on the topographic map in preparation by the United States Geological Survey.

- X12 Report of Examination Department 1896. 114p. Jan. 1897. *10c.*
 X13 College-entrance English. 148p. June 1897. *10c.*

Present English entrance requirements of representative colleges and institutions. Also discussions on aims and methods in teaching secondary school English.

- X14 Examination Papers 1897. 578p. Aug. 1897. *Price, see X13.*
 X15 Report of Examination Department 1897. 120p. Nov. 1897. *15c.*

- X16 Examination Papers 1898. 512p. Sep. 1898. *Price, see X10.*

The second edition contains only the academic papers, the professional papers being printed separately as College bulletin 8; *see* K3.

College Department reports 1898-date. O. *75c a vol.*

College Department bulletins 1898-date. O. *To advance others 50c a year.*

- K1 Director's Report 1898. 128p. Jan. 1899. *15c.*

- K2 Business Syllabus. 46p. Ap. 1899. *Replaced by K13.*

- K3 Professional Examination Papers 1898. 198p. Oct. 1899. *See also Question papers.*

- K4 Professional Examination Papers 1899. 190p. Oct. 1899. *25c.*

- K5 Professional Education in the U. S.—General. 54p. 2p. 1 map. Oct. 1899. *10c.*

- K6 — Theology. 94p. 2pl. Nov. 1899. *10c.*

- K7 — Law. 196p. Dec. 1899. *20c.*

- K8 — Medicine. 400p. Jan. 1900. *45c.*

- K9 — Dentistry. 206p. Feb. 1900. *25c.*

- K10 — Pharmacy. 254p. Mar. 1900. *30c.*

- K11 — Veterinary Medicine. 100p. Ap. 1900. *15c.*

- K12 Director's Report 1899. 138p. May 1900. *15c.*

- K13 Business Syllabus. 62p. Feb. 1900. *10c.*

- K14 Professional Examination Papers 1900. 168p. July 1900. *25c.*

- K15 Certified Public Accountant Syllabus. Ed. 1. 134p. Sep. 1900.
 Ed. 2. 52p. June 1903. *15c.*

- K16 Director's Report 1900. 104p. Feb. 1901. *20c.*

- K17 Professional Examination Papers 1901. 190p. Aug. 1901. *25c.*

- K18 Director's Report 1901. 106p. Jan. 1902. *20c.*

- K19 Professional Examination Papers 1902. 192p. July 1902. *25c.*

- K20 Director's Report 1902. 118p. Mar. 1903. *20c.*

- K21 Professional Examination Papers 1902. 200p. July 1902.
25c.

Question papers. For the academic year 1892 (v. 1); 1893 (v. 2); 1894 (v. 3); 1895 (v. 4). D. *25c a volume; boards 50c.*

See also X10, X14, X16, K3, K4, K14, K17, K19, K21. Each volume previous to second edition of X16 contained all the Regents question papers of that year in any of the academic, professional law, medical, dental, veterinary, library and extension examinations.

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High School Department

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Bulletin 22

ACADEMIC EXAMINATION PAPERS

FOR THE

Academic year 1903

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PREFACE

Academic examinations. These tests are purely voluntary. The last vestige of compulsion regarding them disappeared when they ceased to be used as a means for the distribution of public funds. They are based on the *Academic Syllabus*, which is revised every five years with the assistance of specialists and with suggestions from principals and teachers. All question papers are prepared by specialists and are passed on by a question board of inspectors who are college graduates with experience in teaching and are, through frequent visits, in direct contact with the schools. With each set of question papers sent to the schools is inclosed a blank for criticisms by principals and teachers. By this means each question paper is reviewed by hundreds of teachers and the detailed criticism received is heeded in the preparation of later question papers.

Answer papers are rated first by the principals of the schools and those claimed are then sent to the University for review. In 1902 558,301 answer papers were written, of which number 382,855 or 69% were allowed. 55,192 papers, all of which except those of professional students had been rated by principals and teachers as entitled to 75% per cent, were rejected on review. Since 1889 the per cent of claimed answer papers allowed by the University on review has not fallen below 86 or been greater than 92. All question papers are printed at the office of the Regents, are sent to the schools in steel boxes through the money order department of the express companies, and are most carefully guarded in every way.

JAMES RUSSELL PARSONS JR

Director High School Department

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176TH EXAMINATION

SPELLING

Friday, January 30, 1903—1.15 to 2.15 p. m., only

The following numbered words are to be written by each candidate. The examiner should distinctly and properly pronounce each word (with its number prefixed), allowing sufficient time for writing it before the next word is pronounced. Papers entitled to 75 or more credits will be accepted.

If the black, (1) gleaming (2) nuggets of coal which are (3) known in (4) almost every (5) household in the land could speak, they could tell a (6) stirring, almost (7) incredible (8) story of (9) humanity and (10) heroism. The (11) sacrifices made to bring them from the world's (12) dismal (13) depths, the lives lost, and the homes (14) wrecked, (15) reveal a (16) record of (17) fortitude and intrepidity that (18) rivals the (19) imaginative (20) building of a (21) fictionist.

One (22) morning, with (23) blanched faces, the (24) people of Shamokin, (25) Pennsylvania, (26) stood in (27) groups at (28) street (29) corners. The news had (30) flashed that fire had been (31) discovered five miles away. (32) Fifty or sixty men were in the mine, and every (33) avenue of (34) escape was cut off. (35) Hundreds (36) hastened to the (37) burning mine, from whose (38) mouth, (39) covered with an (40) improvised (41) litter of (42) timbers and (43) brush, (44) huge (45) volumes of smoke were (46) issuing, (47) marking the (48) headway of the fire that (49) raged hundreds of feet below.

(50) Among (51) those (52) directing the work of (53) fighting the fire was the (54) superintendent. His (55) seemingly (56) rigid face (57) failed to (58) conceal his (59) increasing (60) anxiety, and (61) showed how (62) keenly he (63) realized the peril of the men who, by his (64) orders, had gone down the (65) shaft that morning. Even as he (66) reproached (67) himself, there was a (68) mighty (69) shout, and from over the brow of Big Mountain came the men, an old (70) traveling way (71) having been (72) their (73) means of escape.

The (74) safety of the men (75) assured, the (76) spectators, like the mine (77) officers, (78) thought of other dangers. If the fire were not (79) quenched, the (80) consequent (81) destruction would mean loss of bread to the five hundred men (82) employed there, and (83) destitution for two (84) thousand (85) souls (86) depending on them for (87) support.

Six (88) volunteers to make (89) exploration were called for. A hundred (90) responded. The superintendent said that only those who knew the (91) inner workings of the mine would be (92) accepted. The men to make the (93) perilous (94) descent having been (95) selected, down they went, while, (96) beyond the (97) summit, (98) deadly sulfurous (99) gases were being (100) emitted.—F. A. Smink

High School Department

176TH EXAMINATION

SPELLING

Wednesday, January 28, 1903—4.15 to 5.15 p. m., only

The following numbered words are to be written by each candidate. The examiner should distinctly and properly pronounce each word (with its number prefixed), allowing sufficient time for writing it before the next word is pronounced. Papers entitled to 75 or more credits will be accepted.

We must get (1) clearly into our minds that (2) undue (3) expansion and (4) speculation in trade are not (5) caused alone by undue (6) issue of notes, but can be caused (7) equally by undue expansion of (8) deposit (9) currency, while both (10) depend (11) entirely upon an undue expansion of (12) loans. If large (13) advances are made (14) during a (15) period of high speculation, (16) based upon (17) property at (18) boom (19) prices, the (20) liabilities caused (21) thereby may be expanded; (22) whether they be by notes or deposits. In (23) commercial (24) centers where (25) banking is (26) highly developed, the banks can (27) furnish (28) their (29) customers with a currency which will (30) meet all the (31) needs of trade; but in more (32) thinly (33) settled (34) districts, and (35) especially in (36) agricultural (37) communities, where the (38) check (39) system has not (40) reached such a high state of (41) development, there is need for a (42) different (43) means of (44) payment. This means can most (45) effectively be (46) supplied by the note of the bank issued (47) under a system which (48) insures its absolute (49) redemption and (50) easy (51) negotiations. The (52) question before us is, can such a currency be supplied by our (53) national system, and how? (54) Experience (55) teaches us that such a currency can be supplied.

Let us (56) examine the (57) soundness of such a currency. The only (58) index to the (59) future is the experience of the past. It is a (60) trite (61) saying that (62) history (63) repeats (64) itself, and it is no more true in the (65) affairs of a nation or in the (66) individual than it is in the (67) financial affairs of a (68) people. We like to (69) vaunt our (70) wisdom in these (71) latter days, but man's nature is the same in all ages. Like causes (72) produce like effects. The (73) recent (74) exhaustive (75) calculations made by the (76) experts of the

comptroller's (77) office, based not upon (78) suppositive cases, but upon the (79) actual experience of the banks of the national system from 1863 to 1902, should (80) convince the most (81) sceptical that a currency can be issued by the banks, based upon their (82) general (83) assets and (84) protected by a (85) guarantee (86) fund, as safe and as (87) absolutely sure of (88) immediate redemption as if protected by deposit of (89) government (90) securities. In (91) making this calculation the comptroller absolutely (92) discarded all (93) bonds deposited as security and (94) acted upon the supposition that no such security had ever been (95) lodged with the government, (96) relying entirely upon the supposition that the (97) notes had been a first (98) lien upon the assets of the (99) failed (100) institution.—*G. C. Lacy*

High School Department

177TH EXAMINATION

SPELLING

Friday, March 27, 1903—1.15 to 2.15 p. m., only

The following numbered words are to be written by each candidate. The examiner should distinctly and properly pronounce each word (with its number prefixed), allowing sufficient time for writing it before the next word is pronounced. Papers entitled to 75 or more credits will be accepted.

Some person long ago (1) spread a (2) report that (3) teaching school was (4) humdrum. (5) Unthinking (6) people have (7) believed it ever since. Dickens and other story-tellers have (8) repeated the (9) falsehood so (10) skilfully and with such wide (11) publicity that it is not (12) uncommon to find, even (13) among teachers, (14) themselves, a (15) notion that school-keeping is dull, the (16) master a (17) bore, and the teacher a (18) monotonous minded (19) maiden (20) deserving only pity. This is a (21) curiously (22) mistaken (23) idea.

Of all the (24) interesting things in the world, (25) children are the most (26) universally (27) attractive. So (28) various, so (29) surprising, so (30) picturesque, so (31) fascinating, so (32) naturally (33) merry, and, to the (34) onlooker, so (35) suggestive of (36) happy (37) experiences of one's own past are the (38) personalities sent to school that it is only an (39) unnatural (40) judgment that (41) fails to see more attractions than (42) drawbacks in teaching. Who would not (43) envy a schoolmaster his (44) opportunities of (45) enjoyment and (46) service with a (47) family of boys and girls (48) numbering from (49) twelve (50) hundred to three (51) thousand?

The (52) launching of a boy is a (53) great (54) event in family (55) history. It has been (56) talked of for many a (57) month before the (58) important event (59) occurs. (60) Though he shall soon (61) develop some (62) mysterious (63) sensitiveness about (64) wearing his school (65) satchel, he is (66) extremely proud of it on the first day. It is in his eyes a (67) badge of (68) business. He is no (69) longer a baby, but a boy. (70) Perhaps the (71) recognition of this fact makes what is so glad an (72) occasion to him a curious (73) mixture of (74) satisfaction and (75) sadness to the (76) mother.

(77) However great an event (78) coming to school for the first time may be, there is a singular lack of (79) formality in the (80) daily (81) entrance of the mass of (82) underdone (83) humanity that (84) presses (85) against the doors at the (86) opening (87) every (88) morning. The (89) whining schoolboy (90) creeping like a (91) snail (92) unwillingly to school is (93) singularly (94) absent. Such (95) pushing, such (96) noise, such (97) eagerness to be first, make the old (98) descriptions of school-going seem paradoxical. Then comes the (99) trilling of (100) electric bells and the day's work has begun.

High School Department

177TH EXAMINATION

SPELLING

Wednesday, March 25, 1903—4.15 to 5.15 p. m., only

The following numbered words are to be written by each candidate. The examiner should distinctly and properly pronounce each word (with its number prefixed), allowing sufficient time for writing it before the next word is pronounced. Papers entitled to 75 or more credits will be accepted.

The (1) prosperity of a (2) nation (3) depends (4) largely upon its (5) supply of gold—(6) abundance of gold (7) means (8) power and (9) plenty—and it may be (10) truly said that to its (11) enormous (12) production the prosperity of the United States is (13) largely due. Never before was the output of gold so great nor has the country been more (14) prosperous.

About (15) eighteen years ago, when the (16) Canadian (17) Pacific Railroad (18) blasted its line (19) through the (20) rocky (21) ridges, (22) precipitous (23) cliffs and (24) lofty hills of (25) western (26) Ontario on its way to the Pacific coast, an (27) occasional deposit of (28) mineral and (29) stringer of (30) quartz (31) marked the way. These (32) discoveries to the (33) prospector would spell gold, but the (34) railroad (35) builders did not (36) understand Nature's (37) writing. (38) Their minds were (39) filled with (40) grades, (41) tangents and (42) angles, so the news of the quartz (43) veins (44) percolated (45) slowly to (46) interested (47) hearers.

The (48) territory was (49) claimed by both (50) Manitoba and Ontario, which also (51) retarded (52) development. After the (53) disputed territory was (54) ceded to the (55) province of Ontario, (56) hardy men came into this (57) virgin (58) country, and with (59) keen eyes and (60) tireless (61) bodies went into the woods or (62) drifted in pairs over the lakes in birch-bark (63) canoes.

After the (64) pioneers and prospectors, came the (65) miners, who sank (66) shafts where the prospector (67) staked his claim, and thus (68) opened Nature's (69) treasure chest for the use of man . . .

(70) Unlike placer mining, the (71) extraction of gold from the rock (72) itself is (73) really a (74) manufacturing (75) busi-

ness, as (76) legitimate and safe as the manufacture of steel, (77) lumber, cloth, etc., with the (78) exception that in the production of gold there is (79) always a (80) waiting (81) market—the price never (82) fluctuates, the product is money itself.

The gold fields of western Ontario are of (83) volcanic (84) origin. Ages ago the earth's crust was broken by the fires of (85) internal heat, and from the earth's (86) interior (87) liquid quartz and gold (88) rushed into and filled the (89) fissures and (90) crevices which, when (91) cooled, (92) formed (93) defined veins from the (94) surface down to the (95) molten (96) depths. (97) Therefore the veins are (98) richer in metal as the (99) source is (100) neared.—*Rogers Dickinson*

High School Department

178TH EXAMINATION

SPELLING

Friday, June 19, 1903—1.15 to 2.15 p. m., only

The following numbered words are to be written by each candidate. The examiner should distinctly and properly pronounce each word (with its number prefixed), allowing sufficient time for writing it before the next word is pronounced. Papers entitled to 75 or more credits will be accepted.

The (1) ostrich farm at Phoenix, (2) Arizona, (3) gathers its (4) harvest of (5) feathers twice a year. (6) Though the (7) business was begun only (8) fifteen years ago, the flock now (9) numbers one (10) thousand. The (11) annual (12) yield of each bird is valued at (13) thirty (14) dollars. As an ostrich's life, (15) barring (16) fatalities of (17) battle, (18) averages (19) seventy years, it may be (20) readily seen that the (21) proprietor of the farm has a (22) valuable business (23) investment.

(24) Granting the (25) necessary means and (26) facilities, it is not a simple (27) matter to (28) conduct an ostrich farm (29) successfully. It (30) demands (31) special (32) training and (33) acute (34) observation. The ostrich (35) requires in his (36) management, aside from other necessary (37) qualifications, a master's hand—a (38) strict hand, (39) tempered by (40) justice and (41) mercy. Not that he is at all (42) appreciative of kindness. He never (43) becomes (44) thoroughly (45) domesticated, and is (46) utterly (47) destitute of that (48) affection which even the (49) wildest (50) creatures (51) usually (52) learn to have for their (53) keepers. On the (54) contrary, he is (55) haughtily and (56) stolidly (57) irresponsive to kindness, and so (58) treacherous when full-grown that even his (59) daily (60) attendants never (61) approach him unless (62) equipped with the necessary (63) appliances to bring him to terms when in an ugly or (64) dangerous mood. At such times he makes a (65) straightforward kick which would (66) disable and might (67) easily kill a man.

To fight on every (68) possible (69) occasion is a (70) delight to him. These (71) encounters are (72) accompanied by roarings (73) resembling those of a mountain-lion. The (74) female (75) spectators of the (76) affray stand back from their (77) belligerent mates and hiss (78) continually.

One (79) habit (80) peculiar to the male ostrich is his (81) constitutional. At (82) sunrise and just before (83) twilight the male birds line up in single file and race (84) around the (85) enclosure at (86) whirlwind speed. Then (87) suddenly (88) arranging (89) themselves in sets, they (90) execute a (91) grotesque (92) minuet with (93) ludicrous (94) gravity. When the birds are in full (95) plumage, with the light on their (96) iridescent wings, the sight is (97) beautiful, (98) despite the (99) antics of the (100) performers.

University of the State of New York

High School Department

178TH EXAMINATION

SPELLING

Wednesday, June 17, 1903—4.15 to 5.15 p. m., only

The following numbered words are to be written by each candidate. The examiner should distinctly and properly pronounce each word (with its number prefixed), allowing sufficient time for writing it before the next word is pronounced. Papers entitled to 75 or more credits will be accepted.

(1) Society is fast (2) becoming (3) richer than was (4) fore-shadowed in the most (5) audacious (6) dreams of the past. (7) Measured by the (8) standards of today, Croesus was a (9) person of very (10) moderate (11) fortune; and the (12) revenues of kings are of small (13) account (14) compared with the (15) incomes of the (16) leading (17) capitalists of the (18) twentieth (19) century. There are, (20) however, no (21) signs of any (22) reduction of (23) energy, any (24) decline of (25) force, any (26) exhaustion (27) either of the (28) genius (29) which (30) creates (31) wealth or of the (32) material out of which wealth is (33) developed. Great (34) changes will (35) undoubtedly be made in the (36) methods of (37) distribution of wealth, but there will be no (38) diminution in its (39) production. (40) Historic (41) processes are now (42) bearing the slow (43) fruitage of time in the (44) opening up of the (45) entire (46) globe, the (47) drawing (48) together of races in free (49) competition, the (50) discovery of the (51) magical (52) power of (53) cooperation and (54) combination and (55) their (56) application to (57) commerce and (58) trade on a great (59) scale, and, above all, the application of (60) science to (61) business in all (62) departments, from the uses of (63) chemistry in (64) manufacturing to the uses of (65) electricity in swift (66) communication and (67) conveyance of goods.

It is (68) probable that the (69) severest test to which society is to be (70) subjected lies before it in the (71) opulence of the near (72) future, and there is good ground for the (73) forebodings of those who fear that in the (74) greatness of their material fortunes the (75) spiritual fortunes of men will (76) suffer (77) permanent (78) eclipse. The great races have been great by (79) virtue not of (80) possessions, but of (81) ideas, (82) convictions, and (83) character; and in this (84) respect it is not (85) dogmatic to (86) affirm that history will (87) repeat (88) itself.

The (89) problem of the near future will be to keep the spirit in (90) command of the body, the mind (91) superior to the hand, the idea (92) supreme above the material which gives it (93) concrete (94) expression. That (95) problem will not be (96) solved by any form of asceticism, by the (97) preaching of (98) poverty, by (99) repression of the free play of (100) human energy.—*Hamilton W. Mabie*

High School Department

176TH EXAMINATION

ELEMENTARY ENGLISH

Friday, January 30, 1903—9.15 a. m. to 12.15 p. m., only

Answer questions 14-15 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Analyze by diagram or otherwise the following sentence:

Let me not forget the dandelion *that* so early dots the sunny slopes, and upon which the bee languidly grazes, wallowing to his knees in the golden pasturage.

2 Parse, from the quotation in question 1, *let, that, so, slopes*.

3 Write original sentences illustrating the use of *above* as (a) an adverb, (b) a preposition; *what* as (a) an adjective, (b) a pronoun.

4 Write a letter to a friend, telling him of a pleasant surprise that you received Christmas.

5 Parse the italicized words in the following: (a, b) Of all wild creatures he is *one* of the most *graceful* in action, (c) The doe will defend *her* young, (d) A favorite method with the natives *is practised* in winter, and is called by them "still hunting."

6 Select from the following the incorrect sentences and re-write in correct form, giving the reason for each correction: (a) There come three boys home from school, (b) The book was given by both Mamie and I, (c) He had just laid down to rest when he received your telegram, (d) Both you and he may go if it is pleasant, (e) She told me who to expect, (f) Every scholar brought their contribution, (g) Does either of these books belong to you?

7 Combine the following statements into a complex sentence containing but one subordinate clause:

I had climbed the hill. I had set up my rifle against a tree. I began picking berries. I was lured on from bush to bush. I was lured by the black gleam of fruit.

8 Classify the following sentences as to form and as to use (meaning): (a) What a charming pose when she lifted her head, and turned it to regard her child! (b) The liquid is of course thicker and sweeter, and will bear diluting, (c) As she approached Slide Brook, she saw a boy standing by a tree, with a raised rifle, (d) What shall be said of the army which has so nobly relieved them of the terror of the deer? (e) She took a step; she turned her head to the south; she listened intently.

9 Give the third person singular of the following forms of the verb *bite*: (a) active, indicative, present, (b) active, indicative, past (imperfect), (c) passive, indicative, past (imperfect), (d) active, progressive, indicative, present perfect (perfect), (e) emphatic, past (imperfect).

10 Give the part of speech and the syntax of *each* of the italicized words in the following: (a) His haunch is as tender as his *heart*, (b) It is rare to find anything *natural* and un-studied, (c) If the little spotted fawn can think, it must seem to her a queer *world*, (d) The hunters haul them away to market, until the enclosure is *pretty* much emptied, (e) He may find himself climbing an almost inaccessible *cliff*.

11 Select from the following sentences *three* subordinate clauses and give the syntax of each clause selected: (a) I presume that these goats have no nonsense about them, (b) The hunters find them congregated in "yards," where they can be surrounded and shot, (c) Although it is necessary for these people to have something to eat, it is not necessary that they should have the luxury of venison, (d) Probably it is because the shrike is a rare visitant that they do not scold or molest him.

12 Explain the meaning of *five* of the italicized words in the following:

- a Under the open sky, in the *odorous* air of the orchard,
Strip of its golden fruit, was spread the feast of betrothal.
- b The jolly face of the fiddler
Glowed like a *living* coal when the ashes are blown from the *embers*.
- c Gayly the old man sang to the *vibrant* sound of his fiddle.
- d Merrily, merrily whirled the wheels of the *dizzying* dances.
- e With loud and dissonant clangor
Echoed the sound of their brazen drums from ceiling and *casement*.—
Echoed a moment only, and slowly the *ponderous portal*
Closed, and in silence the crowd awaited the will of the soldiers.

13 Relate the stories which the Shawnee woman told Evangeline.

14-15 Write an essay of at least 100 words on *one* of the following topics, paying special attention to spelling, capitalization, punctuation, grammatic construction, proper use of words and sentence structure [Essays on subjects other than those assigned will not be accepted]:

(a) The Exiled Acadians [Describe the departure of the Acadians from Grand Pré], (b) The Jesuit Mission [Let Evangeline give an account of her arrival at the Jesuit Mission and of the welcome accorded her by the priest].

NOTE—Pupils not familiar with *Evangeline* may write on *one* of the following: (a) A Day on the Ice, (b) An Old Garret.

High School Department

177TH EXAMINATION

ELEMENTARY ENGLISH

Friday, March 27, 1903—9.15 a. m. to 12.15 p. m., only

Answer questions 14-15 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Analyze by diagram or otherwise the following sentence:

To shield *her* young when the heat was *greatest*, the mother-bird would stand above them with wings slightly *spread*.

2 Parse, from the quotation in question 1, *her*, *greatest*, *would stand*, *spread*.

3 Write original sentences illustrating the use of *much* as (a) an adjective, (b) an adverb; *both* as (a) an adjective, (b) a pronoun, (c) a conjunction.

4 Write a letter to a friend, telling about a canary or a dog which has recently been given you.

5 Give the part of speech and the syntax of *each* of the italicized words in the following: (a) *Consider what* a shot it was, (b) Was there one *who* would have let her go back to her *waiting* fawn? (c) The hunted doe went down "the open," *flying* along the stony path.

6 Parse the italicized words in the following sentence:

The American deer in the wilderness, left to *himself*, *leads* a *comparatively* harmless *but* rather stupid life.

7 Select from the following the incorrect sentences and re-write in correct form, giving the reason for each correction:

(a) Each one had their work to do every morning, (b) Either he or John is going to try the examinations, (c) Sleep is more useful than any other drug, (d) This year I am only taking two subjects in school, (e) After she finished her lessons, she lay down, (f) He would give neither his promise nor his vote, (g) It will surely be necessary for you and I to be there.

8 Write original sentences containing (a) the passive, indicative, past (imperfect) of *freeze*, (b) the active, indicative, past perfect (pluperfect) of *see*, (c) the passive, progressive, indicative, past (imperfect) of *tear*, (d) the emphatic, indicative, present of *know*, (e) the passive, indicative, present perfect (perfect) of *steal*.

9 Combine the following statements into a complex sentence:

He was sitting on a pile of stones. The children clustered at its base. He fixed his eyes on a white cloud. The cloud was sailing by. He began to speak.

10 Give the syntax of *three* of the italicized phrases in the following: (a) It is amusing *to see the robins* hustle him out of the tree, (b) The bird darted swiftly away *with a happy cry*, (c) One season I placed a large stuffed owl *amid the branches* of the tree, (d) In the bow *of the boat* is a light, (e) The honey-bee's great ambition is *to be rich*.

11 Write an interrogative sentence containing an infinitive phrase; an imperative sentence containing a participial phrase; a compound interrogative sentence containing one complex member.

12 Explain the meaning of *five* of the italicized words in the following:

a For he told them tales of the *loup-garou* in the forest,
And of the *goblin* that came in the night to water the horses.

b Evangeline brought the *draught-board* out of its corner.
Soon was the game begun. In friendly *contention* the old men
Laughed at each lucky hit, or unsuccessful *manoeuver*,
Laughed when a man was crowned, or a breach was made in
the king-row.

Meanwhile apart, in the twilight gloom of a window's *embrasure*,
Sat the lovers and whispered together, beholding the moon rise
Over the *pallid* sea and the silvery *mist* of the meadows.

13 Describe Evangeline's home in Grand-Pré.

14-15 Write an essay of at least 100 words on *one* of the following topics, paying special attention to spelling, capitalization, punctuation, grammatic construction, proper use of words and sentence structure [Essays on subjects other than those assigned will not be accepted]:

(a) A Night of Sorrow [Describe the night spent by Evangeline on the shore after her separation from Gabriel], (b) A Loyal Friend [Let Evangeline tell of the sympathy, hope and comfort given her by Father Felician during her exile].

NOTE—Pupils not familiar with *Evangeline* may write on *one* of the following: (a) My Pet Cat, (b) A Runaway.

High School Department

178TH EXAMINATION

ELEMENTARY ENGLISH

Friday, June 19, 1903—9.15 a. m. to 12.15 p. m., only

Answer questions 14-15 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Analyze by diagram or otherwise the following sentence:

The *doe* did not know it was the *spire* of a *Christian* chapel, but perhaps she *thought* that human pity dwelt there.

2 Parse, from the quotation in question 1, *doe*, *spire*, *Christian*, *thought*.

3 Write a letter to your cousin telling how you expect to spend your summer vacation.

4 Write original sentences illustrating the use of *but* as (a) an adverb, (b) a conjunction; *since* as (a) a preposition, (b) a conjunction; *only* as an adjective.

5 Classify the following sentences as to form and as to use (meaning): (a) It was very seldom that one of his tribe was eaten by the North American tiger, (b) How alert, supple, free, she was! (c) Suddenly she started, head erect, eyes dilated, a tremor in her limbs, (d) But consider what a shot it was! (e) Was there one who would have let her go back to her waiting fawn?

6 Give the part of speech and the syntax of *each* of the italicized words in the following: (a, b) She kept straight on, *hearing* the *baying* every moment more distinctly, (c) Some sportsmen make it their chief business to slaughter as many *deer* as they can, (d) One day she returned, *cured* of her lameness, (e) This is one of the *surest* methods of exterminating the deer.

7 Select from the following the incorrect sentences and rewrite in correct form, giving the reason for each correction: (a) I hear from her most every day, (b) Neither of the two answers are correct, (c) I did not know whom to ask, (d) He hadn't ought to have been told about it, (e) Was it she who told you where to go? (f) Each of the men is to pay his dues, (g) Has the school bell rang yet?

8 Combine the following statements into a complex sentence:

It was time to eat my luncheon. I took shelter under a pine tree. The pine tree was scraggy. The pine tree had rooted itself in the edge of the slope. The slope was rocky.

9 Write the third person singular of *each* of the tenses of the indicative active of *do*, giving in each case the name of the tense. Write *four* infinitives of *do*, giving the name of each.

10 Parse the italicized words in the following: (a) It was slow *going* for the slender legs, (b) The danger was certain *now*, (c) In the afternoon we go to a corn-field that lies *immediately* in front of the highest point of the mountain, (d) As the snow gets *deep*, many deer congregate in the depths of the forest.

11 Write original sentences illustrating *four* different uses of the objective case, stating the use of the objective that each sentence illustrates.

12 Explain the meaning of *five* of the italicized words in the following:

- a Behind them followed the watch-dog . . .
Regent of flocks was he when the shepherd slept.
- b Late, with the rising moon, returned the wains from the marshes, Laden with *briny* hay, that filled the air with its odor.
Cheerily neighed the steeds, with dew on their manes and their *fetlocks*.
- c The *pewter* plates on the dresser
Caught and reflected the flame.
- d Fragments of song the old man sang, and carols of Christmas,
Such as at home, in the olden time, his fathers before him
Sang in their *Norman* orchards and bright *Burgundian* vineyards.
- e Many already have fled to the forest, and *lurk* on its outskirts,
Waiting with anxious hearts the *dubious* fate of tomorrow.

13 Give the story of justice as told by René Leblanc in *Evangeline*.

14-15 Write an essay of at least 100 words on *one* of the following topics, paying special attention to spelling, capitalization, punctuation, grammatic construction, proper use of words and sentence structure [Essays on subjects other than those assigned will not be accepted]:

(a) A Painful Duty [Let the commander of the English soldiers tell of his errand to Grand-Pré and of the effect of his message on the Acadians], (b) *Evangeline's* Journey [Let *Evangeline* describe her journey with Father Felician till she reached the home of Basil].

NOTE—Pupils not familiar with *Evangeline* may write on *one* of the following: (a) What the River Sees, (b) Summer Pleasures.

High School Department

175TH EXAMINATION

ADVANCED ENGLISH

Tuesday, September 23, 1902—1.15 to 4.15 p. m., only

Answer questions 13-15 and seven of the others but no more, including at least three from the first five. If more than seven of the others are answered only the first seven answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Select from the following sentences *three* subordinate clauses, and give the classification (subdivision if adverbial) and the syntax of each clause selected: (a) It was with some difficulty that John arranged that they should ride by turns, (b) As we drove into the great gateway of the inn, I saw on one side the light of a rousing kitchen fire, (c) I caught a glimpse of a countenance which I thought I knew.

2 Give the part of speech and the syntax of *each* of the italicized words in the following: (a, b, c) The coach was crowded, *both inside* and out, with passengers, who seemed principally *bound* to the mansions of relations or friends, (d) Hares hung dangling their long ears about the coachman's box, *presents* from distant friends, (e) I suppose nothing is read nowadays but Sir Philip Sidney's *Arcadia*.

3 Classify as adjective or adverbial, stating subdivision if adverbial, *three* of the italicized phrases in the following and give the syntax of each phrase selected: (a) *In the preceding paper* I have made some general observations *on the Christmas festivities* of England, and am tempted to illustrate them *by some anecdotes*, (b) *In the course* of a December tour in Yorkshire, I rode for a long distance in one of the public coaches, (c) They were returning home for the holidays *in high glee*.

4 Parse, from the following quotation, *perusing, austerity, anxious, only*; give the syntax of the phrase *of folly*:

In *perusing* the preceding paper, I would most courteously invite my reader to lay aside the *austerity* of wisdom, and to put on that genuine holiday spirit which is tolerant *of folly*, and *anxious only* for amusement.

5 Give the syntax of *three* of the italicized infinitives in the following: (a) Travelers of inferior order were preparing *to attack* this stout repast, (b) They have enabled every mind *to pour* itself into print, (c) He had been obliged *to run* the country for deer-stealing, (d) Trim housemaids were seizing an occasional moment *to exchange* a flippant word, (e) *To reason* from analogy, we daily behold the varied and beautiful tribes of vegetables springing up.

6 Select from the following the incorrect sentences and re-write in correct form, giving the reason for each correction: (a) The landscape, with its ever changing beauties, delights the eye, (b) Every year, every day, every hour bring their changes, (c) The disease is more common during warm than cold seasons, (d) Neither the robin nor the bluebird remains with us during the winter, (e) Nobody but the teachers and the subscribers are allowed to use the books, (f) Give the books to that boy, him who is near the door, (g) I have a book, printed in London, and which was written by a famous author.

7 Write a notice announcing a lecture to be given for the benefit of your school library. Give all necessary details.

8 Write sentences containing *three* of the following: (a) a clause denoting condition, (b) a clause denoting manner, (c) an infinitive phrase used as the subject of a sentence, (d) a participial phrase used independently, (e) *as* introducing an adjective clause.

9 Parse the italicized words in the following: (a) There was not a hedge in the whole country *that* he could not clear, (b, c) He was possessed of more virtues than any *steed* *since* the days of Bucephalus, (d, e) There is still *discernible* that *neatness* and propriety of person which is almost inherent in an Englishman.

10 Write original sentences containing (a) an attributive adjective, (b) an appositive adjective, (c) a predicate adjective.

11 Explain the meaning of *five* of the italicized words in the following:

a There are who have, at midnight hour,
In slumber *scaled* a dizzy tower,
And, on the *verge* that *beetled* o'er
The ocean tide's incessant roar,
Dreamed calmly out their dangerous dream.

b Roderick will keep the lake and *fell*,
Nor *lackey* with his freeborn *clan*
The *pageant* pomp of earthly man.

12 Give, from *Lady of the Lake*, a description of the highlands at sunset.

13-15 Write an essay of at least 150 words on *one* of the following topics, paying special attention to spelling, punctuation, grammatic construction and proper use of words; also some attention to introduction, proper grouping of ideas into paragraphs and pleasant transition between sentences [Essays on subjects other than those assigned will not be accepted]:

(a) The Biography of a Diamond, (b) The Value of Time.

High School Department

176TH EXAMINATION

ADVANCED ENGLISH

Monday, January 26, 1903 — 1.15 to 4.15 p. m., only

Answer questions 13-15 and seven of the others but no more, including at least three from the first five. If more than seven of the others are answered only the first seven answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Select from the following quotation (a) a noun clause, (b) an adjective clause, (c) an adverbial clause; mention the subdivision of the adverbial clause and give the syntax of each clause selected:

"Sir," said the little tome, . . . "I was intended to circulate from hand to hand, and I might have silently fallen a prey to these worms if you had not given me an opportunity of *uttering* a few last words . . ."

"My good friend," rejoined I, "had you been left to the circulation of *which* you speak, you would *long* ere this have been no more."

2 Parse, from the quotation in question 1, *sir, me, uttering, long*; give the syntax of the phrase of *which*.

3 Give the syntax of *three* of the italicized infinitives in the following: (a) You are talking of authors who deserve *to be forgotten*, (b) The press is going on with activity, *to double* and quadruple the number, (c) The sudden opening of the door caused me *to turn* my head, (d) Whether or not it was an odd day-dream, I have never been able *to discover*, (e) It will soon be the employment of a lifetime merely *to learn* their names.

4 Write original sentences containing phrases denoting *three* of the following: (a) accompaniment, (b) agency, (c) place from which, (d) limit of motion, (e) instrument or means.

5 Give the classification (subdivision if adverbial) and the syntax of *each* of the subordinate clauses in the following sentences: (a) I had not been long at the inn when a post-chaise drove up to the door, (b) We seek some quiet haunt where we may indulge our reveries, (c) Let criticism do what it may, writers will write.

6 Select from the following the incorrect sentences and re-write in correct form, giving the reason for each correction: (a) Mirth and seriousness each finds its own enjoyment in life, (b) If I were in his place I might not have attempted it, (c) Climbing to the top of the hill, the whole village may be seen, (d) Try to learn your lesson before I come, (e) Each one of the scholars will receive their diploma when school closes, (f) Going down to the boat, I met a friend who had just come from Europe, (g) Some people always have and always will be interested in art.

7 Write a letter to a friend, apologizing for failing to keep an appointment.

8 Explain the use of the tense of the infinitive in *each* of the following: (a) I am pleased to have seen you, (b) I am pleased to see you, (c) I should have been pleased to see you.

9 Change the subordinate clauses in the following sentences to infinitive or participial phrases and give the syntax of each phrase thus formed: (a, b) At first its voice was very hoarse and broken, because it was much troubled by a cobweb which was woven across the book, (c) Books were written that they might give pleasure and be enjoyed, (d) If I should judge from your physiognomy, you are now well stricken in years.

10 Combine the following statements into a complex sentence, changing the first statement to a clause of time:

We were sailing across the banks of Newfoundland. We were sailing in a fine stout ship. A heavy fog prevailed. Heavy fogs are common in those parts. These fogs rendered it impossible for us to see far ahead.

11 Describe the home of Ellen and Douglas on the island and explain why they selected this island as a place of refuge.

12 Explain the references in *one* of the following quotations:

a Thy father's battle-brand, of yore
For Tine-man forged by fairy lore, . . .
Did, self-unscaubarded, foreshow
The footstep of a secret foe.

b Nay, Douglas, nay,
Steal not my proselyte away!
The riddle 'tis my right to read,
That brought this happy chance to speed.

13-15 Write an essay of at least 150 words on *one* of the following topics, paying special attention to spelling, punctuation, grammatic construction and proper use of words; also some attention to introduction, proper grouping of ideas into paragraphs and pleasant transition between sentences [Essays on subjects other than those assigned will not be accepted]:

(a) A Highland Chief's Hospitality [Let James Fitz-James and Malcolm Graeme tell each other of the hospitality shown them by Roderick Dhu], (b) Important Tidings [Let Lennox give an account of the Earl of Mar's message, the king's reply and the tidings received at the castle in the evening].

NOTE—Students not familiar with *Lady of the Lake* may write on *one* of the following: (a) The Celebration of Christmas, (b) Lost in the Snow.

High School Department

177TH EXAMINATION

ADVANCED ENGLISH

Wednesday, March 25, 1903 — 1.15 to 4.15 p. m., only

Answer questions 13-15 and seven of the others but no more, including at least three from the first five. If more than seven of the others are answered only the first seven answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Select from the following quotation *three* subordinate clauses, and give the classification (subdivision if adverbial) and the syntax of each clause selected:

A sketch may serve as a general *representation* of *this* very numerous and important class of functionaries, who have a dress, a manner, a language, an air, peculiar to themselves, and *prevalent* throughout the fraternity; so that, wherever an English stage-coachman *may be seen*, he can not be mistaken for one of any other craft or mystery.

2 Parse, from the quotation in question 1, *representation, this, very, prevalent, may be seen*.

3 Select from the following italicized phrases, a phrase denoting accompaniment, a phrase denoting means or instrument, a phrase denoting agency: (a) They were full of anticipations of the joy they were to give their little sisters *by the presents* with which their pockets were crammed, (b, c) It is like the tone of that bell which has just tolled *among these towers*, filling the ear *for a moment*, (d, e) Criticism increases *with the increase* of literature, and resembles one of those salutary checks on population spoken of *by economists*.

4 Write an original sentence containing a clause of cause and change the clause to a nominative absolute (absolute phrase); an original sentence containing a clause of purpose and change the clause to an infinitive phrase; an original sentence containing a clause of time and change the clause to a participial phrase.

5 Parse the italicized words in the following sentences: (a) When *off* the box, his hands are thrust into the pockets of his great coat, (b, c, d, e) How much, thought I, has *each* of these volumes, now *thrust* aside with such indifference, cost some aching *head!* how many weary *days!*

6 Write a letter to accompany a birthday gift to a friend.

7 Select from the following the incorrect sentences and rewrite in correct form, giving the reason for each correction: (a) Entering the gateway, on the opposite side of the court is seen the new chapel, (b) Every pair of eyes were looking at the man, (c) Not having seen them for several years, he did not recognize them at once, (d) There wasn't hardly anybody on the train with whom I was acquainted, (e) Those who he thought could not come were the first to arrive, (f) If I had

known this before I might have done something to have prevented the accident, (*g*) Every boy and every girl in the class was much pleased with the change.

8 Write original sentences containing *three* of the following: (*a*) an infinitive phrase used as an independent element, (*b*) an infinitive phrase used as an explanatory modifier (appositive), (*c*) an adverbial clause of concession, (*d*) a noun clause used as an explanatory modifier (appositive), (*e*) a relative pronoun used in an adverbial phrase.

9 In the following sentences classify the adjectives as appositive, attributive or predicate: (*a*) At first its voice was very hoarse, (*b*) I found it an exceedingly fluent conversable little tome, (*c*) All possible encouragement should be given to the growth of critics, good or bad, (*d*) His reputation was considered quite temporary, (*e*) The passing of the coach is an event fruitful of much speculation, (*f*) It became more distinct.

10 Write a letter to Mr Brown, the head of a large publishing house, asking him for a position in his employ. Give all necessary details.

11 State why Malcolm Graeme left the home of Roderick Dhu and give an account of his departure.

12 Explain the meaning of *five* of the italicized words in the following:

- a* In rude but glad procession came
Bonneted sire and *coif-clad* dame.
- b* The *murky* cavern's heavy air
Shall breathe of balm if thou hast smiled.
- c* Sore did he cumber our retreat,
And kept our stoutest *kerns* in awe.
- d* But chief, beside the *butts*, there stand
Bold Robin Hood and all his band,—
Friar Tuck with *quarterstaff* and *cowl*.
- e* Indifferent as to archer *wight*,
The monarch gave the arrow bright.
- f* Indignant then he turned him where
Their arms the *brawny* yeomen bare.

13-15 Write an essay of at least 150 words on *one* of the following topics, paying special attention to spelling, punctuation, grammatic construction and proper use of words; also some attention to introduction, proper grouping of ideas into paragraphs and pleasant transition between sentences [Essays on subjects other than those assigned will not be accepted]:

(*a*) A Day of Sport [Give an account of the stag hunt up to the time of the meeting of Fitz-James and Ellen], (*b*) The Guard Room [Describe the scene in the guard room before and after the arrival of Ellen and Allan-bane].

NOTE—Students not familiar with *Lady of the Lake* may write on *one* of the following: (*a*) The Indians of New York State, (*b*) My Idea of the Rainbow.

High School Department

178TH EXAMINATION

ADVANCED ENGLISH

Monday, June 15, 1903—1.15 to 4.15 p. m., only

Answer questions 13-15 and seven of the others but no more, including at least three from the first five. If more than seven of the others are answered only the first seven answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Select from the following quotations *three* subordinate clauses, and give the classification (subdivision if adverbial) and the syntax of each clause selected:

(a) They were full of anticipations of the joy they were to give their little *sisters*, (b) The smith, with the horse's heel in his lap, pauses as the vehicle whirls by, (c) I confess that I felt somewhat nettled at this rudeness, *which*, however, I pardoned on account of *his* having flourished in a *less* polished age, (d) No one *could have toiled* harder than he for immortality.

2 Parse, from the quotations in question 1, *sisters*, *which*, *his*, *less*, *could have toiled*.

3 Give the syntax of *three* of the italicized infinitives in the following: (a) The sooty specter permits the asthmatic engine *to heave* a long-drawn sigh, (b) I have never to this moment been able *to discover*, (c) Here and there only do we behold the heaven-illuminated bards, elevated like beacons on their widely separate heights, *to transmit* the pure light of poetical intelligence from age to age, (d) He is said *to have written* nearly 200 volumes, (e) Here the little quarto began to heave his sides and *chuckle*.

4 Write an original sentence containing an adjective used as an appositive modifier; change the sentence so that the adjective shall be used as (a) an attributive modifier, (b) a predicate adjective.

5 Parse the italicized words in the following: (a) They were recognizing every tree and cottage as they approached *home*, (b, c) I would invite my *reader* to put on *that* genuine holiday spirit which is tolerant of folly, (d) The coach was crowded with passengers who seemed principally *bound* to the mansions of relations or friends, (e) Finding that I *was making* a tour of observation, he insisted that I should give him a day or two.

6 Give the classification (subdivision if adverbial) and the syntax of each of *three* of the subordinate clauses in the following:

(a) He permits the asthmatic engine to heave a long-drawn sigh, while he glares through the murky smoke, (b) If the cook do not lack wit, he will sweetly lick his fingers, (c, d) It was with some difficulty that John arranged that they should

ride by turns, (e) In the evening we reached a village where I had determined to pass the night.

7 Write a letter to a publishing house, ordering three books that you need. Give all necessary information.

8 Select from the following the incorrect sentences and rewrite in correct form, giving the reason for each correction: (a) I corrected the first and second paragraph of the essay, (b) I intended to have finished the book before Monday, (c) It had been my intention to collect some specimens, (d) Living in the suburbs, it is inconvenient to reach the city in stormy weather, (e) Going into the woods after a heavy frost, we found that many nuts had fallen from the trees, (f) Neither the president nor the secretary would sign his name, (g) Grant was more famous than the generals of his time.

9 Write original sentences containing phrases denoting *three* of the following: (a) accompaniment, (b) agency, (c) limit of motion, (d) place from which, (e) instrument or means.

10 Write original sentences containing a noun clause used in each of *three* of the following ways: (a) following an indirect (dative) object but used as the direct object of a verb, (b) as the object of a preposition, (c) in apposition with a noun in the objective case, (d) as a retained object, (e) as a predicate (attribute) complement.

11 Describe how Ellen discovered that Fitz-James was the king.

12 Explain the meaning of the following quotation from *Lady of the Lake*:

Or if on life's uncertain main
Mishap shall mar thy sail;
If faithful, wise, and brave in vain,
Woe, want, and exile thou sustain
Beneath the fickle gale;
Waste not a sigh on fortune changed,
On thankless courts, or friends estranged,
But come where kindred worth shall smile,
To greet thee in the lonely isle.

13-15 Write an essay of at least 150 words on *one* of the following topics, paying special attention to spelling, punctuation, grammatic construction and proper use of words; also some attention to introduction, proper grouping of ideas into paragraphs and pleasant transition between sentences [Essays on subjects other than those assigned will not be accepted]:

(a) A Loyal Subject [Relate two instances that show Douglas's loyalty to the king and to his country], (b) The Minstrel's Tale [Let Allan-bane give an account of his visit to the cell of Roderick in Stirling castle].

NOTE—Students not familiar with *Lady of the Lake* may write on *one* of the following: (a) Home Influences, (b) A Description of a Fire.

High School Department

176TH EXAMINATION

ENGLISH—First Year

Monday, January 26, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more, including at least five questions from the first division. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. The whole paper will be criticized as an exercise in English composition. Papers entitled to 75 or more credits will be accepted.

First division 1 Select from the following quotations *three* subordinate clauses, and give the classification (subdivision if adverbial) and the syntax of each clause selected:

(a) I should observe that these remarks were couched in such intolerably antiquated terms, that I have had infinite difficulty in rendering them into modern phraseology, (b) To these circumstances it may be owing that we have not been inundated by the intellect of antiquity, (c) Only a few fragments are scattered in various libraries, where they are scarcely disturbed, (d) I moved forward to get a nearer view, when his eye caught mine.

2 Parse the italicized words in the following: (a, b, c) I would have a rule passed that the dean should pay *each* of us a *visit* at least *once* a year, (d, e) There is still *discernible* that *neatness* and propriety of person, which is almost inherent in an Englishman.

3 Write original sentences containing *three* of the following: (a) an adverbial clause of condition, (b) an adverbial clause of concession, (c) an adverbial clause of purpose, (d) *why* introducing a noun clause, (e) *why* introducing an adjective clause.

4 Write a letter to a former teacher, asking for a record of your work in English and giving the reasons for your request.

5 Give the syntax of *three* of the italicized phrases in the following: (a, b) Some hasten forth *with bundles* and band-boxes *to secure* places, (c, d, e) The writers whom you suppose *in vogue*, because they happened *to be* so when you were last *in circulation*, have long since had their day.

6 Select from the following the incorrect sentences and re-write in correct form, giving the reason for each correction: (a) One after another is withdrawing from the society, (b) He wrote those letters many years ago and never sent them for his own amusement, (c) Opening the garden gate, the wagon ran over his foot, (d) He either bought the black or the brown coat, (e) The spirit and not the letter of the law, is what we ought to obey, (f) Truth always has been held in reverence

and always should be, (g) There was in his pocket a knife, a nail, a string and a pair of gloves.

7 Select *three* of the following italicized phrases and give the classification of each one selected: (a) I was beguiled by the *lifeless quiet* of the place, (b) A post-chaise drove up to the door, (c) I was ushered into the world *from the press* of the renowned Wynkyn de Worde, (d) The branches of holly, with their *bright red berries*, began to appear, (e) *In a small gallery* were the books, arranged in carved oaken cases.

8 Parse the italicized words in the following: (a, b) The *moment* he arrives where the horses are to be changed, he throws down the *reins*, (c) The *sagest* knot is generally at the *blacksmith's*, (d, e) His bulk is still *further* increased by a multiplicity of coats, the upper *one* reaching to his heels.

Second division 9 Explain why Douglas was exiled and give an account of his pardon by King James.

10 Explain the meaning of *five* of the italicized expressions in the following:

a The *terror of Loch Lomond's side*,
Would, at my suit, thou know'st, delay
A *Lennox foray*—for a day.

b Alas, this wild marauding chief
Alone might *hazard our relief*.

c The vale with loud applauses rang,
The *Ladies' Rock* sent back the clang.

d As if behind some bier beloved,
With *trailing arms* and drooping head,
The Douglas up the hill he led.

e Their *vaward scouts* no tidings bring.

f Ellen the while, with bursting heart,
Remained in *lordly bower* apart,
Where played, with many-colored gleams,
Through *storied pane* the rising beams.

11 Give, from the "Wife," an account of Leslie's return to his cottage in the country.

12 Give, from "Christmas Day," a general description of the observance of Christmas up to the time of the Christmas dinner.

13 Write a description of a Dutch farm and farmhouse as given in the "Legend of Sleepy Hollow."

14 Give an account of the treatment of the Jews in the 12th century, illustrating by an incident from *Ivanhoe*.

15 Sketch the character of Miles Standish, bringing out at least *three* prominent traits.

High School Department

178TH EXAMINATION

ENGLISH—First Year

Monday, June 15, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more, including at least five questions from the first division. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. The whole paper will be criticized as an exercise in English composition. Papers entitled to 75 or more credits will be accepted.

First division 1 Write out each clause in the following quotation and give the classification (subdivision if adverbial) and the syntax of each subordinate clause:

By *being stored* away in this ancient library, you are like the treasured remains of those saints and monarchs, which *lie* enshrined in the adjoining chapels; while the *remains* of your contemporary mortals, *left* to the ordinary course of nature, have *long* since returned to dust.

2 Parse, from the quotation in question 1, *being stored*, *lie*, *remains* (line 3), *left*, *long*.

3 Write original sentences illustrating the following uses of the objective case: (a) factitive object (objective complement), (b) adverbial objective, (c, d) indirect (dative) object and a noun in apposition with the indirect (dative) object, (e) retained object.

4 Write a note to a publisher, thanking him for a book that he has sent you for examination. State your opinion of the book.

5 Parse the italicized words in the following sentences: (a, b) They *suffer* the iron to grow *cool*, (c) I admired that picture of convenience, neatness, and broad honest enjoyment, the *kitchen* of an English inn, (d) The books were much more worn by time than *use*, (e) He stood dozing quietly by the roadside, *little* dreaming of the bustling times that awaited him.

6 Select from the following the incorrect sentences and re-write in correct form, giving the reason for each correction:

(a) Being the last meeting of the season, new officers will be elected, (b) The weather being unpleasant, we decided not to go, (c) Each of the shares were sold at an advance of 5%, (d) Each book belongs to one of the boys who was here yesterday, (e) We come to the country that the children might en-

joy freedom, (*f*) A gentleman living in Boston and who is a frequent visitor in our city, told me of the accident, (*g*) One after another withdrew his objection.

7 Give the classification (subdivision if adverbial) and the syntax of each of *three* of the italicized phrases in the following: (*a*) I moved forward *to get* a nearer view, (*b*) Just *within the passage* is a small door on the left, (*c*) They made the moldering tombs echo *with their merriment*, (*d*) I was just about *to launch* forth into eulogiums, (*e*) I saw my little comrades, *with Bantam*, Carlo, and old John, trooping along the carriage road.

8 Parse the italicized words in the following sentences: (*a*) His reputation was considered quite *temporary*, (*b, c*) I *would ask* the *fate* of an author, (*d, e*) He *had been obliged to run* the country for deer-stealing.

Second division 9 Give, from the "Voyage," a description of the wreck and an account of an anecdote called forth by it.

10 Describe, from "Christmas Day," the services in the church.

11 Give, from "Stratford-on-Avon," an account of Irving's visit to the house where Shakspeare was born.

12 Explain, from *Lady of the Lake*, how the fiery cross interrupted a funeral and a wedding.

13 Give, from *Ivanhoe*, an account of the experiences of the Black Knight in his search for shelter on the evening of the day after the tournament.

14 Explain the circumstances under which the following was uttered:

Let not him that putteth his hand to the plough look backwards;
Though the ploughshare cut through the flowers of life to its
fountains,

Though it pass o'er the graves of the dead and the hearths of the
living,

It is the will of the Lord; and his mercy endureth forever!

15 Describe, from *Snow-bound*, the signs that indicated the approaching storm.

High School Department

176TH EXAMINATION

ENGLISH—Second Year

Tuesday, January 27, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more, including at least three from the first division. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. The whole paper will be criticized as an exercise in English composition. Papers entitled to 75 or more credits will be accepted.

First division 1 Develop the following topic sentence into a paragraph of at least 75 words: Old Esther Dudley was a very peculiar woman.

2 State the topic sentence in the following paragraph, and explain in detail how the topic sentence is developed; give the function of the italicized *but*:

This is the true nature of home—it is the place of peace; the shelter, not only from all injury, but from all terror, doubt, and division. In so far as it is not this, it is not home: so far as the anxieties of the outer life penetrate into it, and the inconsistently minded, unknown, unloved, or hostile society of the outer world is allowed by either husband or wife to cross the threshold, it ceases to be home; it is then only a part of that outer world which you have roofed over, and lighted fire in. *But* so far as it is a sacred place, a vestal temple, a temple of the hearth watched over by household gods, before whose faces none may come but those whom they can receive with love . . . so far it vindicates the name, and fulfils the praise, of home.

3 Criticize and correct the following: (a) Cedric sat at the head of the table and his chair was of very heavy wood and elaborately carved, (b) The leaves of the trees are green all summer but they fall and leave us in the fall, (c) Young people enjoy such sports but they are very tiresome for older people, (d) He was the father of English poetry and the friend of the king, (e) We live in the midst of temptations as thick as microbes.

4 Mention *three* ways in which unity is violated in the following paragraph and rewrite the paragraph in correct form, using two or more sentences if necessary:

As soon as the train stopped I stepped off and my cousins who were there to meet me took me at once to their house which was on a high hill that overlooked a lake and we drove for miles (or at least it seemed miles to me) around and up the hill, past some oaks that surrounded the house and Aunt Mary was out on the steps looking for us when we drove in at the gate.

5 Define *each* of the following: squinting construction, colloquialism, tautology, ambiguity, mixed metaphor.

6 In the following stanzas give the prevailing foot and meter and the position of the cesuras; point out *three* different figures of speech, giving the name of the figure in each case:

- a* But Cassius is no more. — O setting sun!
 As in thy red rays thou dost sink to night,
 So in his red blood Cassius' day is set.
- b* Through utter drought all dumb we stood!
 I bit my arm, I sucked the blood,
 And cried, "A sail! a sail!"
-

Second division 7 Show how Lady Eleanore Rochcliffe's pride was humbled.

8 Give, from the "Prophetic Pictures," a description of the painter and of the methods used by him in his work.

9 Relate the incidents of the journey of Sir Roger and the Spectator to and from the county assizes.

10 Give, from *Sesame and Lilies*, a sketch of what Ruskin says in regard to the accurate use of words.

11 Give instances to show how Coleridge uses suspense, contrast and vivid word pictures in the *Ancient Mariner*.

12 Contrast Sir Launfal's treatment of the leper at their first meeting with his treatment at their second meeting.

13 Describe the feelings and behavior of Silas Marner when he discovered the sleeping child by the hearth.

14 Explain in detail why Calpurnia wished Caesar to remain at home on the morning of the assassination.

15 "The leading reflection to which this occasion seems to invite us, respects the great changes which have happened in the 50 years since the battle of Bunker Hill was fought."

Give an account of the changes referred to in the above quotation from the *First Bunker Hill Oration*.

High School Department

178TH EXAMINATION

ENGLISH—Second Year

Tuesday, June 16, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more, including at least three from the first division. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. The whole paper will be criticized as an exercise in English composition. Papers entitled to 75 or more credits will be accepted.

First 1 Write a paragraph of at least 75 words on the following topic: Sir Roger de Coverley and his Servants.

2 In the following paragraph give the topic sentence, state the way in which the topic sentence is developed, mention the words in the second sentence on which the fourth and fifth sentences depend and show why the last sentence makes a good conclusion:

We live in a most extraordinary age. Events so various and so important that they might crowd and distinguish centuries are, in our times, compressed within the compass of a single life. When has it happened that history has had so much to record, in the same term of years, as since the 17th of June, 1775? Our own Revolution, which, under other circumstances, might itself have been expected to occasion a war of half a century, has been achieved; twenty-four sovereign and independent states erected; and a general government established over them, so safe, so wise, so free, so practical, that we might well wonder its establishment should have been accomplished so soon, were it not for the greater wonder that it should have been established at all. Two or three millions of people have been augmented to twelve, the great forests of the west prostrated beneath the arm of successful industry, and the dwellers on the banks of the Ohio and the Mississippi become the fellow-citizens and neighbors of those who cultivate the hills of New England. We have a commerce that leaves no sea unexplored; navies, which take no law from superior force; revenues, adequate to all the exigencies of government, almost without taxation; and peace with all nations, founded on equal rights and mutual respect.

3 Mention the rhetorical quality violated in *each* of the following sentences and correct each sentence: (a) He told him that he had left his book on his desk, (b) They believed that exercise was one of the most important ways of keeping themselves in good condition, or they seemed to, (c) She was so ambitious that she not only talked about, but also persuaded people to go to, the entertainment, (d) There were a great many books on the shelves and he could find nothing to read but fiction, (e) Picking up her bundle with much difficulty she resumed her journey.

4 Mention the figure of speech found in *each* of the following and rewrite each sentence, expressing the thought without using figurative language: (a) There was a general gathering of rank, wealth and beauty, (b) The sweet flower of courtesy is not a growth of such homes, (c) So here, again, had good

fortune stolen so near that her garments brushed against him, (d) The child will grow like grass in May, (e) For the earth, too, had on her black veil.

5 Write at least 75 words on the arrangement of thought within the paragraph, touching on *three* of the following: (a) unity, (b) continuity (sequence), (c) proportion, (d) emphasis, (e) variety.

6 Mention and describe the kind of verse used in the following quotation; mark the scansion and the position of the cesuras and select an example of run-on lines, end-stopt verse:

Friends, Romans, countrymen, lend me your ears;
I come to bury Caesar, not to praise him.
The evil that men do lives after them,
The good is oft interred with their bones;
So let it be with Caesar. The noble Brutus
Hath told you, Caesar was ambitious:
If it were so, it was a grievous fault,
And grievously hath Caesar answer'd it.

**Second
division**

7 Let a grandmother describe to her grandchildren Esther Dudley's attitude toward the children of the town and the way in which she, when a child, was entertained by Esther Dudley.

8 Show how the proverb "A haughty spirit goeth before a fall" is illustrated in "Lady Eleanore's Mantle." [Do not write out the story in detail.]

9 Describe *two* of the members of the club to which Sir Roger belonged.

10 "In nothing is a gentle nation better to be discerned from a mob, than in this,—that their feelings are constant and just, results of due contemplation, and of equal thought."

Mention *three* instances given by Ruskin in *Sesame and Lilies* to illustrate the above statement.

11 Describe one of the vivid pictures portrayed by Coleridge in the *Ancient Mariner*.

12 Write a paragraph of at least 75 words, showing Burns's idea of a happy home as illustrated in the *Cotter's Saturday Night*.

13 Show, from *Silas Marner*, how the folly of Godfrey Cass affected his conduct toward (a) his father, (b) Nancy Lammeter.

14 Mention *two* prominent traits in the character of Brutus as shown in *Julius Caesar*. Illustrate each by detailed reference to the play.

15 Give, from the *First Bunker Hill Oration*, the substance of Webster's address to Lafayette.

High School Department

176TH EXAMINATION

ENGLISH—Third Year

Wednesday, January 28, 1903—1.15 to 4 15 p. m., only

Answer 10 questions but no more, including at least three from the first division. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. The whole paper will be criticised as an exercise in English composition. Papers entitled to 75 or more credits will be accepted.

First division 1 State what is meant by movement in narration and show how it may be advanced. Mention two uses of conversation in narration.

2-3 Write at least 150 words, describing a room in such a way as to convey the impression of cheerfulness.

4-5 Write a circumstantial description of the room mentioned in questions 2-3.

6 Narrate an incident based on the following suggestion: A child 12 years old, who is traveling alone, is carried 100 miles beyond his destination.

Second division 7 Contrast the descriptions of melancholy in *L'allegro* and in *Il penseroso*.

8 Mention, from the *Essay on Criticism*, the names of two Roman critics, one French critic and two English critics, and write an explanatory note regarding each.

9 Give, from the *Essay on Milton*, Macaulay's answer to the following objection to Milton's poetry:

Milton has been often censured for ascribing to spirits many functions of which spirits must be incapable.

10 Give, from the *Essay on Burns*, Carlyle's account of the development of Scottish literature, showing how Burns influenced this literature.

11 In the essay on *Compensation* Emerson says, "The same dualism underlies the nature and condition of man."

Explain what Emerson means by dualism, and mention three illustrations given by him to prove the above statement.

12 Give the legend of Ruksh, Rustum's horse, and describe the scene in which he shows his sympathy for Rustum.

13 Mention, from the *Merchant of Venice*, one instance of the use of contrast in (a) character, (b) setting. Show in each case how the contrast is brought out.

14 Describe, from *As You Like It*, the scene in which the wrestling match occurs (act 1, scene 2) and show how this scene furthers the development of the play.

15 Write a description of the Lambert family as portrayed in *The Virginians*.

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178TH EXAMINATION

ENGLISH—Third Year

Wednesday, June 17, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more, including at least three from the first division. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. The whole paper will be criticized as an exercise in English composition. Papers entitled to 75 or more credits will be accepted.

First division 1 Mention and explain *three* means by which the character of an individual may be depicted in narration.

2-3 Write a description of a bridge (a) as seen from a boat near the bridge, (b) as seen from an upper window in a building near by.

4-5 Write a narrative connected with the bridge mentioned in questions 2-3, using the following details: a crowd on the bridge, an accident, a rescue.

6 Classify, as impressional or circumstantial, the description illustrated in the following paragraph, state the effect on the reader and show how this effect is produced:

The day had brightened very much, and still brightened as we went westward. We went our way through the sunshine and the fresh air, wondering more and more at the extent of the streets, the brilliancy of the shops, the great traffic, and the crowds of people whom the pleasanter weather seemed to have brought out like many-colored flowers. By and by we began to leave the wonderful city, and to proceed through suburbs which, of themselves, would have made a pretty large town, in my eyes. It was delightful to see the green landscape before us, and the immense metropolis behind; and when a wagon with a train of beautiful horses, furnished with red trappings and clear-sounding bells, came by us with its music, I believe we could all three have sung to the bells.

Second division

7 Come, but keep *thy wonted state*,
With even step, and musing gait;
And looks *commérceing* with the skies,
Thy *rapt* soul sitting in thine eyes:
There, held in holy passion still
Forget thyself to marble, till
With a sad leaden downward cast
Thou fix them on the earth as fast.

—*Il penseroso.*

To whom does *thy* refer? What *was the wonted state?*
Explain the meaning of *commérceing*, *rapt*, *forget thyself to marble*.

8 Give an account of the circumstances under which the following was uttered:

How charming is divine philosophy!
Not harsh and crabbed, as dull fools suppose,
But musical as is Apollo's lute,
And a perpetual feast of nectared sweets,
Where no crude surfeit reigns.

9 In the *Conduct of the Understanding*, Locke says, "It becomes our prudence, in our search after knowledge, to employ our thoughts about fundamental and material questions, carefully avoiding those that are trifling."

Explain what Locke means by fundamental and material questions and mention the two examples of fundamental truths given by him.

10 Give, from the essay on *Compensation*, an account of what Emerson says in regard to the attitude of people toward calamity, and show what he considers are the compensations of calamity.

11 Mention *three* characteristics of Burns's poetry as given by Carlyle in the *Essay on Burns*, and give an account of what Carlyle says in regard to *one* of these characteristics.

12 An epic poem must (a) deal with a great past, (b) represent a great action concentrated in a brief period, (c) possess a noble hero.

Show how these characteristics of an epic poem apply to *Sohrab and Rustum*, illustrating your answer by references to the poem.

13 Shylock is "a man no less sinned against than sinning." Show the truth or falsity of the above statement by references to the *Merchant of Venice*.

14 Sketch, from *As You Like It*, the subplot of Silvius and Phebe and show how it strengthens the play.

15 Give, from *The Virginians*, an account of *two* of the following: Madam Esmond, Mr Sampson, Colonel Wolfe, Hester Lambert.

High School Department

175TH EXAMINATION

ENGLISH COMPOSITION

Tuesday, September 23, 1902 — 1.15 to 4.15 p. m., only

Answer questions 11-15 and five of the others but no more. If more than five of the others are answered only the first five answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Write a paragraph of at least 75 words on *one* of the following topics: (a) De Bracy's Surrender to the Black Knight at the Storming of Front-de-Boeuf's Castle, (b) Books as Companions.

2 Write a note to a friend, thanking him for the use of a book which you are returning. Mention the book and give your opinion of it.

3 Write the following sentences in correct form: (a) A dog that belonged to a very distinguished man never having been ill a day, suddenly died, (b) I never remember to have seen a more beautiful view than this, (c) The state ought to pay the schoolmaster instead of the private individual, (d) His death was due to apoplexy and he had reached the age of 60 years, (e) He expected to have a pleasant time and that he would see many interesting things.

4 State which of the following sentences is loose and which is periodic, and rewrite each sentence, changing the loose sentence to the periodic form and the periodic sentence to the loose form:

a After having in vain endeavored to select the most beaten path, in hopes it might lead to the cottage of some herdsman, and having repeatedly found himself totally unable to determine on a choice, the knight resolved to trust to the sagacity of his horse.

b This worthy churchman rode upon a well-fed ambling mule, whose furniture was highly decorated, and whose bridle, according to the fashion of the day, was ornamented with silver bells.

5 Define emphasis. Show, with illustrations, how emphasis may be secured by (a) the placing of words out of their normal position, (b) the use of contrast, (c) the omission of unnecessary words.

6 Contract the following sentences: (a) He is a man who has no money and no friends, (b) She works with a rapidity which is astonishing, (c) I did not wish to interfere for I did

not know the circumstances, (*d*) There are only very few people who can afford this luxury, (*e*) Though the work is difficult, yet it is not unpleasant.

7 You have ordered goods from a merchant and have sent a remittance. The goods have not arrived, and you have been put to great inconvenience in consequence. Write for an explanation, giving necessary details.

8 Give, from *Ivanhoe*, a description of the hall at Rotherwood in which Cedric received his guests.

9 Show in detail how Ivanhoe obtained a horse and armor for the tournament.

10 Describe the meeting between Ivanhoe and the king in Sherwood forest after the attack of the Blue Knight.

11-15 Write an essay of at least 250 words on *one* of the following topics, paying particular attention to introduction and conclusion, sequence of thought, paragraph structure and sentence transition [Essays on subjects other than those assigned will not be accepted]:

(*a*) The Value of Athletic Sports, (*b*) Business Habits.

ENGLISH COMPOSITION

Monday, January 26, 1903—1.15 to 4.15 p. m., only

Answer questions 11-15 and five of the others but no more. If more than five of the others are answered only the first five answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Write a paragraph of at least 75 words on the following topic: The Rescue of Rebecca at Templestowe.

2 Assume that you have been visiting a friend during the Christmas holidays. On your return home write a letter, thanking her for your entertainment and explaining in detail why you specially enjoyed the visit.

3 Express the idea of the following sentence in *five* other ways: The appearance of the first snow-storm usually indicates the approach of winter.

4 Write the following sentences in correct form: (a) The superintendent delivered a lecture on the importance of being prompt to morning exercises at three o'clock in the afternoon, (b) I thank you very much for sending me your copy of *Ivanhoe* and which I herewith return, (c) The ability to read and write was not always so universal among all classes as it is today, (d) No public lecturer is so much sought after or more widely known than Leighton, (e) People have such a marvelous power of misunderstanding even the plainest directions and a business letter never can be made too clear.

5 Combine the following into (a) a loose sentence, (b) a periodic sentence:

It was the evening after the tournament. The knight was holding his course northward. He avoided all frequented paths. He took the shortest road. This road led through the forest.

6 Explain what is meant by sentence transition. Write a paragraph containing at least *two* transitional words or phrases and show the force of each.

7 Prepare an outline for an essay on *one* of the following topics from *Ivanhoe*, making sufficient subdivisions to show what matter you intend to include in the essay: (a) The Tournament, (b) The Faithfulness of Wamba.

8 You have concluded to apply for a position in an office. Write a letter to a friend who knows of your ability and experience, asking for a letter of recommendation.

9 Give, from *Ivanhoe*, a sketch of the life and character of the outlaws.

10 Describe the meeting of Prince John and his friends in the castle of York, and show the effect of this meeting on the plot of the story.

11-15 Write an essay of at least 250 words on *one* of the following topics, paying particular attention to introduction and conclusion, sequence of thought, paragraph structure and sentence transition [Essays on subjects other than those assigned will not be accepted]:

(a) A Wounded Knight's Imprisonment [Let *Ivanhoe* in after years relate his experiences while in Front-de-Boeuf's castle], (b) A Saxon Funeral [Give a detailed description of the funeral ceremonies at Coningsburgh castle].

NOTE — Students not familiar with *Ivanhoe* may write on *one* of the following: (a) The Self-made Man, (b) Labor Unions.

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177TH EXAMINATION

ENGLISH COMPOSITION

Wednesday, March 25, 1903—1.15 to 4.15 p. m., only

Answer questions 11-15 and five of the others but no more. If more than five of the others are answered only the first five answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Write at least 75 words on the following topic from *Ivanhoe*:
The Imprisonment of Isaac at Torquilstone.

2 Write (a) a formal note declining an invitation to dinner,
(b) an informal note declining an invitation to dinner.

3 Write the following sentences in correct form: (a) In the president's absence he has asked me to give the following report, (b) Her greatest desire in life seemed to be to find rare books to fill her book shelves with, (c) On the walls were breast-plates, guns and various other symbols of war and he was a great warrior, (d) We went to the fire which was in the old store which was next to the hotel where we once lived, (e) When the lights were turned on I was speechless, and I could not say a word.

4 Write a periodic, a loose and a balanced sentence on *Ivanhoe*. [Each sentence must consist of at least 20 words.]

5-6 Write the following in condensed form, using about 50 words and omitting unimportant details:

Evangeline is a most beautiful story that tells about life in Acadia at the time when the Acadians were driven from their homes and scattered along the coast by the English who were sent over by King George. In the haste and confusion of going away many families were separated, and some of them never came together again. The story of *Evangeline* is the story of such a separation. She is betrothed to Gabriel Lajeunesse but in the confusion of departing they are carried away in different ships. *Evangeline* spends the rest of her life in search of Gabriel. After searching for him in vain for many long years, she gives up the hope of ever meeting him again and becomes a Sister of Mercy. One Sunday morning as *Evangeline* is visiting the sick in the almshouse she comes to an old man who is dying. It is Gabriel and they recognize each other just as he dies. *Evangeline* does not live long after this and they are buried side by side.

7 Distinguish in meaning between the sentences in *each* of the following pairs: (a) I may do the work; I can do the work, (b) I will do as you request; I shall do as you request, (c) He would open the window; He should open the window, (d) He

found the way easy; He found the way easily, (e) It all depends on the man doing the work; It all depends on the man's doing the work.

8 The train on which you were traveling has been wrecked and many of the passengers injured, but you are unhurt. Telegraph these facts to your mother, in not more than 10 words, stating when you expect to reach home.

9 Describe, from *Ivanhoe*, an incident illustrating the faithfulness of Wamba.

10 Give, from *Ivanhoe*, an account of the pardon of the Friar by King Richard.

11-15 Write an essay of at least 250 words on *one* of the following topics, paying particular attention to introduction and conclusion, sequence of thought, paragraph structure and sentence transition [Essays on subjects other than those assigned will not be accepted]:

(a) Saxon Hospitality [Let the Palmer give an account of the evening at Rotherwood in Cedric's banquet hall], (b) A Trial for Witchcraft [Describe the trial of Rebecca at Templestowe before the Grand Master of the Templars.]

NOTE—Students not familiar with *Ivanhoe* may write on *one* of the following: (a) A Friend in Need, (b) My Favorite Author.

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178TH EXAMINATION

ENGLISH COMPOSITION

Monday, June 15, 1903—1.15 to 4.15 p. m., only

Answer questions 11-15 and five of the others but no more. If more than five of the others are answered only the first five answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Write a paragraph of at least 75 words on the following topic from *Ivanhoe*: The Prior's Ransom.

2 Assume that you have a friend who is going abroad. Write him (her) a letter containing at least 75 words appropriate to the occasion.

3 Write the following sentences in correct form: (a) After waiting patiently for a month the letter arrived, (b) I found a good story which I sat on the lawn and read, (c) Passengers are requested to purchase their tickets before going on the train at the ticket office, (d) These games are not free to spectators and there is a charge for admission, (e) People decorated their homes and all the public buildings and churches were decorated.

4 Contract or expand the following sentences, stating in detail the changes made: (a) Now is the time when we should do our best, (b) This is a strong story, but it is not a pleasant story, (c) He is a man who has common sense and good judgment, (d) The minister being very ill, there was no service last Sunday, (e) The children having eaten their breakfast started for school.

5 Define *each* of the following: paragraph, topic sentence, transitional word, loose sentence.

6 Rewrite *each* of the following sentences so that the italicized words will have an emphatic position: (a) The awful cry resounded *again* throughout the building, (b) A *beautiful and stylish* young girl alighted from the coach, (c) He appointed *me* to a position of prominence in spite of all my failures, (d) *She confronted him* calmly and unconcernedly, with an attitude of dignity and confidence, (e) With one hand he lifted the child, and he grasped the horse *with the other*.

7 Mention *two* violations of unity and *one* violation of clearness in the following sentence, rewriting in correct form:

I looked all over the room for the book which I had left on the table which was near the door and as I could not find it I asked my sister, when she went out, to buy me another one, but she refused and told me that I ought not to be so careless; at least that was what she meant.

8 Write an answer to an advertisement for a clerk. State your qualifications and give references.

9 Give, from *Ivanhoe*, an account of Rowena's experiences at the tournament.

10 Mention, from *Ivanhoe*, a prominent trait of Athelstane's character and describe an incident illustrating this trait.

11-15 Write an essay of at least 250 words on *one* of the following topics, paying particular attention to introduction and conclusion, sequence of thought, paragraph structure and sentence transition [Essays on subjects other than those assigned will not be accepted]:

(a) A Royal Knight-errant [Let Richard Coeur de Lion relate some of his experiences while traveling in disguise through his own kingdom, (b) Gurth and the Outlaws [Give an account of Gurth's experience with the outlaws when *Ivanhoe* sent him on the errand to Isaac of York].

NOTE—Students not familiar with *Ivanhoe* may write on *one* of the following: (a) What the Birds Say, (b) The Necessity of Rest.

ADVANCED ENGLISH COMPOSITION

Wednesday, January 28, 1903—1.15 to 4.15 p. m., only

Answer eight questions but no more. If more than eight are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

1 State what is meant by contrast, suspense and climax as applied to narration. Mention *one* way in which each of these elements may be introduced.

2-3 Write a circumstantial description of the front of a house and grounds as seen from a point of view near by.

4-5 Write about 100 words, contrasting the characters of two boys, one of whom is cowardly, the other fearless and brave.

6 Narrate an incident in which the two boys mentioned in questions 4-5 figure prominently, bringing out the contrast in character.

7-8 Your teacher wishes you to choose a certain profession which you think you would not like. A friend who has become very successful in this profession persuades you to change your mind. Report in dialogue form the conversation that led to this change.

9-10 Write an abstract of the following article, containing not more than *three* well constructed paragraphs:

The American system of fighting fire has long been considered by experts, the world over, as the most perfect in existence. Perhaps necessity, the mother of invention, has forced us to this excellence; perhaps the natural bent of the American mind, which runs to mechanical devices and machinery, has had something to do with it. The Germans and the French say that we ought to have the best fire-departments in the world, because we have more fires than any other country, and, consequently, more experience in fighting them. Our fire force is nearly four times that of Germany or France in proportion to the population, and three times that of England.

Today New York still has more fires than Paris, but during the last half century, especially since the prohibition of wooden buildings within city limits and the establishment of our fire-department, a fire serious enough to disturb the city is of comparatively rare occurrence. Before that time, it must be admitted that the first curious feature of life in New York to the visitor from Europe was the number of our fires. The Frenchman or German awakened by fire-bells when in New York at once dressed himself and tried to find the fire, for such events were of vast interest in the old country, and, for the first week or two, he was likely to fill his letters home with fire stories.

There are several reasons why our American cities should have more fires than European cities. In the first place, the wooden construction, common in earlier years, made our cities almost as vulnerable to fire as are the Chinese and Japanese towns of today, where fire sweeps away whole quarters almost periodically. The value of one solidly built structure as a stay to fire has been shown over and over again in the last 20 years. In the second place, our climatic conditions favor the fire-fiend. In European countries, the temperature is comparatively equable; here, we have a tropical summer and a rigorous winter. After a summer heat that dries everything to tinder, we have sudden cold that calls for the lighting and driving of every fire, stove, and furnace, in order to make us comfortable, with an inevitable result, especially in the flimsy constructions so common in this country. It may also be added, that European economists mention our prosperity as a reason for our many fires; we bear, without complaint, a yearly fire loss that, to Europeans, seems a wicked and unnecessary waste.

Our American fire houses compare favorably with those of Europe, although some of the English cities provide better accommodations in the way of gymnasiums and baths than any of our departments, unless it is that of Milwaukee. One difference between London and New York is that there the fire stations offer living accommodation to the wives and children of the married men. Glasgow boasts of an even finer fire house than London can show. Its headquarters fire station, opened in 1898, is a six story building, with a granite and marble front. The walls of the room where the engines and trucks stand are of highly polished onyx and granite. The building contains a large sitting-room, billiard-room, and gymnasium. This fire station cost \$300,000, and is, probably, the finest in the world.

A national fire-department has been suggested as a possibility of the future. Chief Shaw, who for so many years directed London's fire-department, tried to make all the important English cities adopt uniform apparatus and drill, but aimed at nothing more national than that. In this country, a scheme to compel the state to provide a minimum amount of apparatus for every community within its borders has been broached in several legislatures. It often happens that the firemen of one village will refuse to succor a neighboring village which has neglected to provide itself with apparatus, although amply able to do so. The state might step in, and, by the payment of fire bounties, make it worth while for the village company to do its best, even for those who had contributed nothing toward its support.

11 Write an outline of the article given in questions 9-10.

12 Write an account of a book that you have recently read, touching on (a) plot, (b) development of character, (c) use of description. [Give name of book.]

High School Department

'178TH EXAMINATION

ADVANCED ENGLISH COMPOSITION

Wednesday, June 17, 1903—1.15 to 4.15 p. m., only

Answer eight questions but no more. If more than eight are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

1 State what is meant by sequence of time and sequence of cause and effect, as applied to narration. Sketch the plan of a narrative so as to show how the sequence of items is determined by cause and effect.

2-3 Write a paragraph of at least 100 words, describing a woman so as to convey the impression of her good nature.

4-5 Assume that the woman mentioned in questions 2-3 has just missed a train. Report in dialogue form the conversation between her and a friend whom she meets in the station, bringing out her prominent characteristic, good nature.

6 A description may proceed from the distant to the near, from the general to the specific, or may follow some other law.

State what method is employed in the following paragraph, defending your statement by a discussion of the arrangement of items in the paragraph:

The afternoon sun was warm on the five workmen there, busy upon doors and window-frames and wainscoting. A scent of pine wood from a tent-like pile of planks outside the open door mingled itself with the scent of the elder bushes which were spreading their summer snow close to the open window opposite; the slanting sunbeams shone through the transparent shavings that flew before the steady plane, and lit up the fine grain of the oak paneling which stood propped against the wall. On a heap of those soft shavings a rough gray shepherd-dog had made himself a pleasant bed, and was lying with his nose between his fore paws, occasionally wrinkling his brows to cast a glance at the tallest of the five workmen, who was carving a shield in the center of a wooden mantel piece.

7-8 Write a narrative based on the following: A boy walking along a road finds a pocket-book containing \$100.

9 Give the climax of a play of Shakspeare or of a story with which you are familiar and explain in detail why you consider this the climax.

10-11 Summarize in one well constructed sentence each paragraph in the following article [A fifth sentence may be added in completing the summary]:

With the salute of a hundred guns, the cheering of thousands of Hawaiians, and the reading of the president's message of congratulation and goodwill, the completion of the first section of the American Pacific cable was celebrated at Honolulu. The event was perhaps the most important in the commercial history of the islands, for with it they entered into the larger life of the outer world.

From a purely business point of view, it is only a very few years since the establishment of a cable between Honolulu and San Francisco has been regarded as worthy of consideration. Until the recent development of trade with China and Japan, any one who advocated a submarine telegraph-cable in the Pacific Ocean had an opportunity of learning what a forlorn hope is like. The Atlantic Ocean had its telegraph-cables, which came into existence because there was business to support them. But the Pacific Ocean was long destined to remain as innocent of cables as the pond of a country village.

In later years, however, California was so identified in business interests with Hawaii that its public men were always ready to urge upon their delegation in Congress the passage of cable bills. But neither in Honolulu nor at the coast was capital ready to embark in the enterprise. Last winter, after fruitless efforts by the Commercial Pacific Cable Company to secure an enabling act from Congress for its cable, authority was again sought to lay the cable. Then President Roosevelt vigorously cut the Gordian knot and gave the long sought permission under certain conditions.

The company undertook to complete the line to Manila in 1904. In all probability it will be finished by the fourth of July next. But it is not the intention of the company to stop at Manila. On account of the immense importance to Americans of cable connection with China and of the immense trade waiting in that country for the United States in general and for California in particular, arrangements have been made to extend the cable from Manila to Shanghai. Of the extent of this great work some opinion may be formed when it is considered that the length of the cable will be three and one half times longer than the Atlantic cable. The whole length of the line will be about 10,000 nautical miles.

12 Write a concluding paragraph of at least 50 words for the article given in questions 10-11.

University of the State of New York
High School Department

175TH EXAMINATION

RHETORIC

Tuesday, September 23, 1902—9.15 a. m. to 12.15 p. m., only

Answer questions 12-15 and six of the others but no more. If more than six of the others are answered only the first six answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Develop the following topic sentence into a paragraph of at least 75 words: Opposing circumstances create strength of character.

2 State the topic sentence in the following paragraph and show in detail how the topic sentence is developed:

Enlarge the position you occupy; put originality of method into it. Fill it as it never was filled before. Be more prompt, more energetic, more thorough, more polite than your predecessor or fellow workmen. Study your business, devise new modes of operation, be able to give your employer ideas. The art lies not merely in giving satisfaction, not simply in filling your place, but in doing better than was expected, in surprising your employer; and the reward will be a better place and a larger salary.

3 Criticize and correct the following: (a) In the morning they took a long drive and the afternoon was their time for paying or receiving calls, (b) Their daughter studied music for years, but she never played in public, so I hear, (c) Captain Jones hired two boats which were used by patrolmen in rowing about the streets that were flooded with water, (d) Our present plan is to take a trip across the continent, stopping a few days in the principal cities, (e) So utterly was Carthage destroyed that we are unable to point out the place where it stood at the present day.

4 In the following sentences change the plain language to figurative language, giving in each case the name of the figure used: (a) He is now enjoying the result of his toil, (b) A man who is constantly moving from place to place never succeeds, (c) Old people should always be revered by the young, (d) Time passes altogether too rapidly.

5 Explain the meaning of *each* of the following in connection with paragraph writing: unity, continuity (sequence), proportion.

6 Distinguish between (a) tautology and verbosity, (b) loose sentence and periodic sentence, (c) balanced sentence and parallel construction.

7 Rewrite the following paragraph, inserting at least *three* correct transitional words or phrases and giving a reason in each case:

Ichabod Crane was a conscientious man and never spared the rod when punishment seemed necessary. He did not take pleasure in inflicting pain. He administered justice with discrimination rather than with severity. The weak he always passed by with indulgence. He realized that their powers of endurance were less than those of the strong. He was greatly honored and respected in the community in which he lived.

8 Mark the scansion of the following lines, stating the prevailing foot and meter; select an example of masculine rime, feminine rime, run-on lines:

a Just for a handful of silver he left us,
Just for a riband to stick in his coat—
Found the one gift of which fortune bereft us,
Lost all the others she lets us devote.

b Listen, my children, and you shall hear
Of the midnight ride of Paul Revere.

9 Explain, by references to the story, the meaning of the title "The Prophetic Pictures."

10 Describe the effect of the black veil on the minister himself and on the people.

11 State the underlying lesson taught by "Old Esther Dudley" and show how this lesson is brought out in the development of the tale.

12-15 Write an essay of at least 250 words on *one* of the following topics [Essays on subjects other than those assigned will not be accepted]:

(a) The Choice of Friends, (b) The Coronation of Edward 7.

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High School Department

176TH EXAMINATION

RHETORIC

Tuesday, January 27, 1903—9.15 a. m. to 12.15 p. m., only

Answer questions 12-15 and six of the others but no more. If more than six of the others are answered only the first six answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Develop one of the following topic sentences into a paragraph of at least 75 words by giving reasons or proofs: (a) Strikes benefit workmen, (b) Strikes do not benefit workmen.

2 Supply a topic sentence for the following paragraph and show how the thought contained in the topic sentence is developed in each of the other sentences:

Every American you meet seems to be late for a train. Hurry is stamped in the wrinkles of the American face. We pride ourselves upon being practical men, men who strike sledge-hammer blows in our business, men who even make business of recreation. We are men of action, we die without it; nay, we go faster and faster as the years go by, speed our machinery to the utmost, stretch the silver cord of life until it snaps. We have not even leisure to die a natural death, we go at high pressure until the boiler bursts.

3 Mention the rhetorical quality violated in *each* of the following sentences and correct each sentence: (a) I heard him tell him that he did not intend to do what he did, (b) The room was completely filled to its utmost capacity with the greatest number that it could hold, (c) The name of the hotel was the Windsor, and it was completely destroyed by fire, (d) Though they were much surprised at, yet they were greatly pleased with, the news that she brought, (e) The knowledge which he gained during the summer which he spent in the mountains, proved to be of great service to him.

4 Mention the figures of speech found in the following and trace in detail the points of comparison:

As the future oak lies folded in the acorn, so in the present lies our future. Our success will be, can be, but a natural tree, developed from the seeds of our own sowing; the richness of its fruit will depend upon the nourishment absorbed.

5 Write sentences illustrating the following: antithesis, masculine rime, periodic sentence, alliteration.

6 Criticize the following paragraph in regard to unity in sentence structure and transitional words, rewriting in correct form:

The children are going to Vacation Home and some ladies are going with them, for the Home is on a farm which is near a lake (the scenery around the lake is beautiful) and there are swans and boats and the children are allowed to use them, and swings and games and plants are all around, and I am sure they will have a good time; at least they ought to.

7 Mention and explain *three* different forms of conclusion.

8 Define *five* of the following: ode, sonnet, lyric poem, epic poem, Spenserian stanza, heroic verse, blank verse.

9 Relate the experiences of Dominicus Pike before he reached the tavern five miles from Parker's Falls.

10 Describe the three processions as seen in "Sights from a Steeple."

11 Explain, from "Howe's Masquerade," why Miss Joliffe considered that the ghosts of the ancient governors had been summoned to form the funeral procession of royal authority in New England.

12-15 Write an essay of at least 250 words on *one* of the following topics [Essays on subjects other than those assigned will not be accepted]:

(a) An Honored Guest [Let Dr Clarke give an account of the arrival of Lady Eleanore at the Province House], (b) A Page from the Secret History of David Swan [Describe the phantoms of wealth, love and death that hovered over David Swan as he rested by the roadside].

NOTE—Students not familiar with *Twice-told Tales* may substitute *one* of the following: (a) The Modern Newspaper, (b) A Successful Undertaking.

High School Department

177TH EXAMINATION

RHETORIC

Thursday, March 26, 1903—9.15 a. m. to 12.15 p. m., only

Answer questions 12-15 and six of the others but no more. If more than six of the others are answered only the first six answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Write a paragraph consisting mainly of balanced sentences and containing at least 75 words on the following topic: Country Life and City Life.

2 In the following paragraph state (a) the words in the topic sentence on which the second sentence depends, (b) the words in the topic sentence on which the third sentence depends, (c) the force of the connective *but* in the third sentence, (d) the bearing of the last sentence on the main thought of the paragraph, (e) an example of climax:

Every feat of heroism makes us forever indebted to the man who performed it. All daring and courage, all iron endurance of misfortune, all devotion to the ideal of honor and the glory of the flag, make for a finer and nobler type of manhood. It is not only those who do and dare and endure that are benefited; *but* also the countless thousands who are not themselves called upon to face the peril, to show the strength, or to win the reward. All of us lift our heads higher because those of our countrymen whose trade it is to meet danger have met it well and bravely.

3 Criticize and correct the figures in the following: (a) He enjoyed the friendship of a few chosen friends, but he did not care to shine as a star in the upper crust of society, (b) In making the decision he was guided by judgment and by the lamp of experience, (c) This one strong column of our falling house was summoned from my side that he might fight in the war with Spain, (d) At the sound of the word rebellion their spirits froze as fish are frozen in a pond, (e) The passion for gold possesses him, he steals, he sells, he kills, he buys for gold.

4 Mention *three* ways in which unity in sentence structure may be violated. Illustrate by original sentences the violations mentioned and rewrite the sentences in correct form.

5 Write a suitable topic sentence for *one* of the following types of paragraph structure and develop this sentence into a paragraph illustrating the type selected: (a) repetition, (b) illustration, (c) proof.

6 Rewrite correctly the following letter:

Brookville, N. Y.

My dear Mrs White:

If you will be so kind as to lend me your *Twice-told Tales* I shall be so obliged and I have been anxious to get it for sometime because lots of my friends are studying it and they say it is very interesting, and I should have got it at the book-store but they are all out of it and haven't got any more copies. Could you send it so that I shall get it by the day after tomorrow? Thanking you for your kindness in advance,

I remain, yours respectively,

Edith X. Gordon

7 Prepare an outline for an essay on the following topic, making sufficient subdivisions to show what matter you intend to include in the essay: Progress in the 19th Century.

8 Mention and describe the kind of verse used in the following quotation; mark the scansion of the first four lines, stating the position of the cesuras:

When I consider how my light is spent
 Ere half my days in this dark world and wide,
 And that one talent which is death to hide
 Lodged with me useless, though my soul more bent
 To serve therewith my Maker, and present
 My true account, lest He returning chide,
 "Doth God exact day-labor, light denied?"
 I fondly ask. But Patience, to prevent
 That murmur, soon replies, "God doth not need
 Either man's work or his own gifts. Who best
 Bear his mild yoke, they serve him best. His state
 Is kingly: thousands at his bidding speed,
 And post o'er land and ocean without rest;
 They also serve who only stand and wait."

9 Give an account of Jervase Helwyse's behavior at the ball given in honor of Lady Eleanore.

10 Show how good fortune might have come to David Swan had he awakened from his sound sleep.

11 Give an account of Sir William Howe's last interview with Esther Dudley.

12-15 Write an essay of at least 250 words on *one* of the following topics [Essays on subjects other than those assigned will not be accepted]: (a) The Mystery of the Black Veil [Relate the circumstances under which Mr Hooper first wore the black veil and state what the veil symbolized], (b) The Painter's Mission [Show how the painter warned Elinor of her fate and explain how he finally came to her rescue].

NOTE—Students not familiar with *Twice-told Tales* may substitute *one* of the following: (a) The Advantages and Disadvantages of Labor Strikes, (b) Now is the Time.

University of the State of New York

High School Department

178TH EXAMINATION

RHETORIC

Tuesday, June 16, 1903—9.15 a. m. to 12.15 p. m., only

Answer questions 12-15 and six of the others but no more. If more than six of the others are answered only the first six answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Develop the following topic sentence into a paragraph of at least 75 words by giving particulars and details: I visited last week some very interesting people.

2 In the following paragraph show in detail how the thought contained in the first sentence is developed in the second sentence, give the function of the italicized *for*, state the relation of the last sentence to the sentence preceding it and point out one device to secure emphasis:

A rich nature is the first requisite of wealth, and money but the second. To be of a quick and healthy blood, to share in all honorable curiosities, to be rich in admiration and free from envy, to rejoice greatly in the good of others, to love with such generosity of heart that your love is still a dear possession in absence or unkindness—these are the gifts of fortune which money can not buy and without which money can buy nothing. *For* what can a man possess, or what can he enjoy, except himself? If he enlarge his nature, it is then that he enlarges his estates. If his nature be happy and valiant, he will enjoy the universe as if it were his park and orchard.

3 Criticize and correct the following: (a) While climbing the tree, the boy's basket became so heavy that he could not hold it, (b) It was suspended by an invisible thread that could not be seen, (c) The soil is rich and fertile in the eastern part but the western soil is dry and sandy, (d) This is a description full of beauty and strength and which conforms to the rules of rhetoric, (e) There was a large gathering of men and women there and there were a great many children there too.

4 State the figure of speech in the following and show the points of comparison:

All are architects of Fate,
Working in these walls of Time;
Some with massive deeds and great,
Some with ornaments of rhyme . . .

For the structure that we raise,
Time is with materials filled;
Our todays and yesterdays
Are the blocks with which we build.

5 Rearrange the following sentences and insert, giving a reason in each case, at least *three* transitional words or phrases:

Ichabod Crane was a conscientious man and never spared the rod when punishment seemed necessary. The weak he always passed by with indulgence. He was greatly honored and respected in the community in

which he lived. He did not take pleasure in inflicting pain. He administered justice with discrimination rather than with severity. He realized that the powers of endurance of the weak were less than those of the strong.

6 Point out *two* violations of unity, *one* violation of strength, and *one* violation of clearness in the following, and rewrite the paragraph in correct form:

Ivanhoe is a very good book which treats of the life and times of Richard the Lion-Hearted, who returned to England in disguise where he entered the tournament and fought very bravely in behalf of *Ivanhoe* who was nearly overpowered by three knights, after an absence of very many years. After the tournament some of the conspirators (they were supposed to be friends of Prince John) captured Cedric and his train and took them to and imprisoned them in Torquilstone castle. *Ivanhoe*, who was very sick, was among the prisoners, and when Richard heard of this he was very much alarmed and immediately went to his rescue.

7 Mention *two* rules to be observed in the construction of a metaphor. Change the following metaphor into a simile: Hope is the best medicine for despondency; the following simile into a metaphor: Applause swept like a storm through the great hall; the following into plain language: It was a gray life without a thread of gold.

8 Define iambic tetrameter, dactylic hexameter. Write and scan a line of poetry illustrating each.

9 Give, from "Howe's Masquerade," a description of the scene in the Province House previous to the spectral procession.

10 Explain, without writing out the story in detail, how Dominicus Pike heard of Mr Higginbotham's murder two days before it was attempted and arrived in time to save Mr Higginbotham's life.

11 Relate, from the "Minister's Black Veil," an incident showing how Mr Hooper was deprived of love by wearing the black veil.

12-15 Write an essay of at least 250 words on *one* of the following topics [Essays on subjects other than those assigned will not be accepted]:

(a) A Loyal Subject [Relate the story of the loyalty of old Esther Dudley to her king], (b) A Bird's-eye View [Write a description of the scenes in the town as viewed from the steeple in "Sights from a Steeple"].

NOTE—Students not familiar with *Twice-told Tales* may substitute *one* of the following: (a) The Uses of Electricity, (b) Courtesy in Every Day Life.

High School Department

176TH EXAMINATION

HISTORY OF LITERATURE

Friday, January 30, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more; of these 10 questions at least five must be from part 1 in order to receive credit for English literature, and at least five from part 2 in order to receive credit for American literature. Answer 10 questions in all cases, whether credit is desired for either one of the two parts or for both parts. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

English Literature

Part 1 1 Show the influence on English literature of (a) the writings of Chaucer, (b) early translations of the Bible.

2 Mention and describe *three* classes of literature between the Norman Conquest and Chaucer.

3 Mention, with the title of a work of each, *two* dramatists, *two* non-dramatic poets and *one* philosopher, who were contemporaries of Shakspeare.

4 Mention *one* poem by Milton and *one* by Dryden, pointing out *three* characteristic differences in treatment. Show the influence of party affiliation on the writings of each.

5 Sketch the life of Samuel Johnson, touching on (a) youth, (b) contemporaries, (c) influence on literature.

6 Give the author, plan and purpose of each of *two* of the following: *Princess, Prothalamion, Battle of the Books, Hudibras, Dunciad, Pilgrim's Progress.*

7 Account for the changes that appeared in literature during the early part of the 19th century. Mention *two* representative writers of this period, giving a work of each.

8 Mention, with author of each, *three* great elegiac poems in English literature and give an account of *one* of the poems mentioned.

9 State the style of writing employed by *each* of the following to influence social reform: Addison, Swift, Thackeray. Illustrate by mentioning an important work of each.

10 Write a sketch of a leading character in one of George Eliot's works.

American Literature

Part 2 11 Show the relation of American literature to English literature in (a) the early 17th century, (b) the 19th century. Explain.

12 Show the influence of the following on the life and works of Cotton Mather: (a) ancestry, (b) spirit of the times. Give a sketch of his most important work.

13 Write on *one* of the following: (a) literature of the Revolutionary period, (b) eminent American orators, (c) noted women authors in American literature.

14 Mention the principal writings of Irving and show the connection between his life and these writings.

15 Give the author and title of the romance which tells the story of the Brook Farm experiment. Write a short sketch of this romance.

16 "With God's help he thought for himself, he said earnestly what he thought—no more, no less—and he did exactly what he said."

Show how the above quotation applies to Whittier's life and works.

17 Give the characteristics of Poe's tales, illustrating by references to incidents in the tales.

18 Give the author and title of a romance, a poem, a history and a novel in which the Indian is depicted.

19 Mention *five* important writers who contributed to the cause of abolition, giving a work of each.

20 Select 10 of the following works and mention the author of each one selected: *History of Plymouth Plantation*, *Representative Men*, *Nile Notes of a Howadji*, *Bitter-sweet*, *Walden*, *The Prince of India*, *Hugh Wynne*, *The Story of Kennett*, *Backlog Studies*, *The Ruling Passion*, *England Without and Within*, *Marco Bozzaris*, *The Strenuous Life*, *The Age of Reason*, *In the Palace of the King*.

University of the State of New York
High School Department

178TH EXAMINATION

HISTORY OF LITERATURE

Friday, June 19, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more; of these 10 questions at least five must be from part 1 in order to receive credit for English literature, and at least five from part 2 in order to receive credit for American literature. Answer 10 questions in all cases, whether credit is desired for either one of the two parts or for both parts. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

English Literature

Part 1 1 Mention the traits of (a) Anglo-Saxon literature, (b) Norman literature. Show how these traits were blended and state the results at the time of Chaucer.

2 State by whom *each* of the following was written and explain the importance in literature of each: *Saxon Chronicle, Spectator, Robinson Crusoe, Gorboduc.*

3 "The century following the death of Chaucer is generally regarded as the most barren in the history of literature."

Account for the causes that led to this condition.

4 Mention *two* comedies and *three* tragedies (not including historical plays) of Shakspeare, and sketch an important character in *one* of the plays mentioned.

5 Give a sketch of Milton's literary career, separating it into three periods, stating the characteristics of his writings in each period and mentioning a work belonging to each.

6 Give an account of the classic school of literature. Show how the preceding age influenced this style of writing and mention *three* representative writers.

7 State the period in literature which claims the first important historians. Mention *three* of these historians and sketch the life of *one* of them.

8 Mention *two* prominent women writers of the Victorian age and give an account of the works of *one* of them.

9 Give the author of *each* of the following and mention the type of literature represented by each: *Treasure Island, Stones of Venice, Pippa Passes, Ivanhoe, Jew of Malta.*

10 Compare the works of Thackeray with those of Dickens, mentioning at least *two* points of similarity and *two* points of difference. Illustrate by references to their works.

American Literature

Part 2 11 Contrast the literary polish of early American writings with that of early English writings and account for the difference.

12 Show how the early conditions in New England, more than those in Virginia, favored the production of literature and the growth of culture.

13 State the effects of the introduction of printing and its relation to the development of literature in America. Mention some of the earliest books and periodicals published in America.

14 Give a sketch of the life of the author who was the first American to make literature a profession, and mention *three* of his most important works.

15 State the conditions that influenced the oratory of the early 19th century and mention *four* great orators of that period.

16 Write a sketch of a work by *one* of the following: Louisa M. Alcott, Lew Wallace, James Fenimore Cooper.

17 It is said that Hawthorne uses his characters like algebraic symbols to work out certain problems; they are rather more, yet rather less, than flesh and blood.

Prove the truth of the above statement by references to Hawthorne's writings.

18 Give an account of the movement known as Transcendentalism, showing its effect on literature. Mention the leaders of this movement.

19 Contrast the works of Whittier with those of the rest of the New England group of poets, so as to show the influence of Whittier's early life on his works.

20 Select 10 of the following works and mention the author of each one selected: *Freedom of the Will*, *The Grandissimes*, *Conquest of Peru*, *Ramona*, *Oregon Trail*, *The Old Gentleman of the Black Stock*, *The Maine Woods*, *A Chance Acquaintance*, *Via Crucis*, *The Lady or the Tiger*, *The Minister's Wooing*, *Prince and the Pauper*, *In His Name*, *Sheridan's Ride*, *Lars*.

University of the State of New York

High School Department

176TH EXAMINATION

COURSE IN ENGLISH READING

Friday, January 30, 1903—1.15 to 4.15 p. m., only

Answer eight questions but no more. At least four questions must be chosen from each division. Each answer under the first division will be considered a short (20 minute) theme and will be graded for composition. If more than eight questions are answered only the first eight answers will be considered. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted

First 1 Give, from the *Princess*, an account of the inter-division view of Melissa with Cyril, Florian and the Prince.

2 Give, from *Julius Caesar*, an account of the quarrel between Brutus and Cassius.

3 Relate, from *Silas Marner*, the circumstances that forced Godfrey Cass to sell Wildfire.

4 Describe the sinking of the ship and the rescue of the ancient mariner.

5 Give Carlyle's discussion of the question as to whether any one might have rendered Burns effectual help in his last days.

6 Give, from the *Vicar of Wakefield*, an account of the life of the Primrose family at Wakefield.

7 Describe, from *Ivanhoe*, the meeting of Isaac and Rebecca with Cedric's train on their return from the tournament.

8 Write on the following topic: The element of superstition in *Silas Marner* and in *Sir Roger de Coverley Papers*.

Second 9 In his *Speech on Conciliation with America* Burke division says: "The capital leading questions on which you must this day decide, are these two: First, whether you ought to concede; and secondly, what your concession ought to be."

Give two arguments under each question to show Burke's position.

10 State by whom and under what circumstances the following was uttered, and explain the meaning of the italicized expressions:

Within this hour at most
I will advise you where to plant yourselves,
Acquaint you with the *perfect spy o' the time*,
The moment on't; for't must be done to-night,
And something from the palace; always thought
That I require a clearness.

11 Answer *either* the questions pertaining to *a* and *b* or those pertaining to *c*:

- a* Haste thee, nymph, and bring with thee
Jest, and youthful jollity,
Quips and cranks and wanton wiles.
- b* Hence, vain deluding joys,
The brood of folly without father bred!
How little you *bested*,
Or fill the *fixed* mind with all your toys.

Explain the meaning of *quips*, *bested*, *fixed*. Point out an example of alliteration. Write the scansion of the first line of each selection.

- c* Now to my charms,
And to my *wily trains*: I shall ere long
Be well stocked with *as fair a herd* as grazed
About my mother Circe. Thus I hurl
My dazzling spells into the spongy air,
Of power to cheat the eye with *blear illusion*,
And give it *false presentments*.

Explain the meaning of *wily trains*, *blear illusion*, *false presentments*. Explain fully the allusion in *as fair a herd*, giving the mythologic reference.

12 Write a description of *Comus*, covering the following points: (*a*) kind of play, (*b*) style, (*c*) moral.

13 Explain the references in *three* of the following from *Lycidas*:

- a* Bitter constraint and sad occasion dear
Compels me to disturb your season due.
- b* For we were nursed upon the self-same hill,
Fed the same flock, by fountain, shade and rill.
- c* And sage Hippotades their answer brings,
That not a blast was from his dungeon strayed:
The air was calm, and on the level brine
Sleek Panope with all her sisters played.
- d* Last came, and last did go,
The Pilot of the Galilean lake;
Two massy keys he bore of metals twain
(The golden opes, the iron shuts amain).
- e* Look homeward, Angel, now, and melt with ruth:
And, O ye dolphins, waft the hapless youth.

14 Relate, from the *Essay on Milton*, Ariosto's story of the fairy and show how Macaulay applies this simile.

15 Give Macaulay's estimate of Addison as (*a*) a writer, (*b*) a man, (*c*) a politician.

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178TH EXAMINATION

COURSE IN ENGLISH READING

Friday, June 19, 1903—1.15 to 4.15 p. m., only

Answer eight questions but no more. Four questions must be chosen from each division. Each answer under the first division will be considered a short (20 minute) theme and will be graded for composition. If more than eight questions are answered only the first eight answers will be considered. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

First division 1 Give, from *Julius Caesar*, an account of Antony's funeral oration and show its effect on the people.

2 Describe the Spectator's first impressions and observations when he visits Sir Roger in the country.

3 Relate, from the *Vicar of Wakefield*, the successive calamities that befell the vicar while in prison.

4 Give, from Carlyle's *Essay on Burns*, Scott's account of his meeting with Burns.

5 Give, from the *Princess*, an account of the tourney between the champions of the Princess and the Prince and his followers, stating its cause and result.

6 Describe an ideal summer day as portrayed in Lowell's *Vision of Sir Launfal*.

7 Describe the change in the life and character of Silas Marner after the arrival of Eppie.

8 Compare Isaac of York with Shylock, pointing out the similarities and differences in character.

Second division 9 Explain the meaning of the following from Burke's *Speech on Conciliation with America*, with special reference to the italicized words:

My resolutions therefore mean to establish the equity and justice of a taxation of America by *grant*, and not by *imposition*; to mark the *legal competency* of the colony assemblies for the support of their government in peace, and for public aids in time of war; to acknowledge that this legal competency has had a dutiful and beneficial exercise; and that experience has shown the benefit of their grants, and the futility of parliamentary taxation as a *method of supply*.

10 Explain the meaning of *three* of the following from *Macbeth*:

a Only look up clear;
To alter favor ever is to fear.

b I have no spur
To prick the sides of my intent, but only
Vaulting ambition, which o'erleaps itself
And falls on the other.

c I have drugg'd their possets,
That death and nature do contend about them,
Whether they live or die.

- d But in them nature's copy's not eterne.
 e Time, thou anticipat'st my dread exploits:
 The flighty purpose never is o'ertook
 Unless the deed go with it.

11 State the purpose of the night-walking scene. Show how this scene reveals the struggle in Lady Macbeth's mind, illustrating by references or quotations.

12 Explain the mythologic references in *three* of the following from *L'allegro* and *Il penseroso*:

- a Of Cerberus and blackest Midnight born
 In Stygian cave forlorn
 'Mongst horrid shapes, and shrieks, and sights unholy!
 b There let Hymen oft appear
 In saffron robe, with taper clear,
 And pomp, and feast, and revelry.
 c Or that starred Ethiop queen that strove
 To set her beauty's praise above
 The sea-nymphs, and their powers offended.
 d And hears the Muses in a ring
 Aye round about Jove's altar sing.
 e Or bid the soul of Orpheus sing
 Such notes as, warbled to the string,
 Drew iron tears down Pluto's cheek,
 And made hell grant what love did seek.

13 Answer *either* the questions pertaining to *a* or those pertaining to *b*:

- a *This* is mere moral babble, and direct
 Against the *canon laws of our foundation*.
 I must not suffer this; yet 'tis but the lees
 And settlings of a melancholy blood.
 But *this* will cure all straight; one sip of this
 Will bathe the drooping spirits in delight
 Beyond the bliss of dreams.—*Comus*

Explain the reference in *this* (line 1), *this* (line 5). Explain the meaning of *canon laws of our foundation*. Give the name of the figure in lines 3-4 and express the idea without using the figure.

- b But now *my oat proceeds*,
 And listens to the *herald of the sea*,
 That came in *Neptune's plea*.
 He asked the waves, and asked the *felon* winds,
 What hard mishap hath doomed this *gentle swain*?—*Lycidas*

Give the meaning of *my oat proceeds*. Explain in full the reference in *the herald of the sea*, in *Neptune's plea*. Why are the winds called *felon*? Give the name of the person referred to in *gentle swain*.

14 "No poet has ever triumphed over greater difficulties than Milton."

Give the arguments by which Macaulay supports the above statement.

15 Give an account of what Macaulay says in regard to Addison's *Cato*, covering (a) its production in Drury Lane theater and its reception by the public, (b) its merits.

ENGLISH SELECTIONS

Wednesday, September 24, 1902 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Give an account of the plan of the *Canterbury Tales* and describe one of the characters portrayed.

2 Give in detail an explanation of the allegory of the *Prothalamion*.

3 Narrate the story of Ferdinand as given in the *Tempest*.

4 Mention, from the *Song for Saint Cecilia's Day*, five musical instruments and show how Dryden illustrates the power of each.

5 Show in detail, from *Alexander's Feast*, how the changes in Alexander were brought about.

6 Describe the picture to which Wordsworth refers in the following quotation from *Tintern Abbey*:

And now, with gleams of half-extinguished thought,
With many recognitions dim and faint,
And somewhat of a sad perplexity,
The picture of the mind revives again.

7 Relate the circumstances that led Leodogran to send to Arthur for help.

8 Describe the scene in which Percivale sees the holy grail.

9 Narrate the story of *The Boy and the Angel*, bringing out the lesson it teaches.

10 Show how valor, self-confidence and contentment are portrayed in the character of Hervé Riel.

11 Give, from the essay on *Studies*, Bacon's discussion of the way in which the mind is influenced by studies.

12 Give, from the *Conciliation with the Colonies*, an account of what Burke says in regard to the commerce of the colonies.

13 Give, from *Heroes and Hero Worship*, Carlyle's justification of the following statement:

I think the best judgment not of this country only, but of Europe at large, is slowly pointing to the conclusion, that Shakspeare is the chief of all poets hitherto; the greatest intellect who, in our recorded world, has left record of himself in the way of literature.

14 Give an outline of Bacon's conduct at the trial of Essex and show how Macaulay explains Bacon's attitude.

15 Write on *one* of the following: (a) the theme of *Laodamia*, (b) the Knights of the Round Table, (c) the Moham-
medan religion as described by Carlyle.

High School Department

176TH EXAMINATION

ENGLISH SELECTIONS

Wednesday, January 28, 1903 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Describe, from the *Prologue*, the host of the Tabard and give in detail his proposition for enlivening the journey to Canterbury.

2 Explain the references in the following from the *Prothalamion*:

a Through discontent of my long fruitlesse stay
In princes court.

b To mery London, my most kyndly nurse.

c There whylome wont the Templer Knights to byde,
Till they decayd through pride.

3 Give, from the *Tempest*, an account of the intended assassination of Alonso and Gonzalo and show how the plan was frustrated.

4 Outline, from *Alexander's Feast*, the two songs that illustrate the truth of the following quotation:

Timotheus, to his breathing flute,
And sounding lyre,
Could swell the soul to rage, or kindle soft desire.

5 Show, either by quotations from *Laodamia* or by paraphrase, the conception of Protesilaus regarding love.

6 Describe Wordsworth's attitude toward nature when he wrote *Lines composed above Tintern Abbey*, and show how it differed from his attitude toward nature in previous years.

7 Give an account of the awakening of the prisoner of Chillon from the state of insensibility into which he had fallen after the death of his brothers.

8 Write, from the *Coming of Arthur*, a description of (a) the Lady of the Lake, (b) Excalibur.

9 Describe, from the *Holy Grail*, two of the phantoms seen by Percivale in the land of sand and thorns and show how the hermit accounts for the phantoms.

10 Reproduce *The Lost Leader* in plain prose.

11 Give an account of Pan and show how he is connected with the story of *Pheidippides*.

12 Explain the meaning of *each* of the following quotations from Bacon :

a Distilled books are like common distilled waters, flashy things.

b Clear and round dealing is the honour of man's nature.

c Let his travel appear rather in his discourse than in his apparel or gesture.

13 Mention, from *Conciliation with the Colonies*, the four cases cited by Burke as having been successfully won by concession, and show how the policy employed in these cases applies in regard to America.

14 Give, from *Heroes and Hero Worship*, an account of *either* Johnson *or* Rousseau.

15 Write on *one* of the following topics: (*a*) The Portrayal of Character in the *Prologue*, (*b*) The Supernatural Element in the *Tempest*, (*c*) The Aspiration of Theocrite.

High School Department

178TH EXAMINATION

ENGLISH SELECTIONS

Wednesday, June 17, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

- 1 Write in modern English the following from the *Prologue*:

The blisful martir quyte you youre meede!
And wel I woot, as ye gon by the weye,
Ye schapen yow to talen and to pleye;
For trewely comfort ne merthe is noon
To ryde by the weye domb as a stoon.

- 2 Describe the nymphs depicted in the *Prothalamion* and sketch the part taken by them in the poem.

- 3 Mention *three* occasions when Ariel helps to develop the plot of the *Tempest*, and give an account of *one* of them.

- 4 Describe, as given in the *Song for Saint Cecilia's Day*, (a) the power of harmony in the creation of the universe, (b) the effect of the music of Jubal.

- 5 Give, from *Laodamia*, the incident of the trees and show how it is connected with the poem.

- 6 Complete the thought in the following quotation from *Lines composed above Tintern Abbey* by showing in detail the influence of the "beauteous forms" on Wordsworth:

These beauteous forms,
Through a long absence, have not been to me
As is a landscape to a blind man's eye:

- 7 On what two occasions is Lancelot introduced into the *Coming of Arthur*? Describe the circumstances connected with *one* of these occasions.

- 8 "The search for the holy grail is a mistake; an evil, not a good."

State whether, in your opinion, the above statement is true or false, sustaining your answer by arguments based on Tennyson's *Holy Grail*.

- 9 Give an account of the circumstances that led Hervé Riel to take command of the French ships and show how he rescued the ships.

10 Explain the allusions in the following italicized expressions from *Pheidippides*:

Then I name thee, claim thee for our patron, co-equal in praise
—Ay, with *Zeus the Defender*, with *Her of the aegis and spear!*
Also, *ye of the bow and the buskin*, praised be your peer,
Now, henceforth and forever,—O latest to whom I upraise
Hand and heart and voice! For Athens, leave pasture and flock!
Present to help, potent to save, *Pan*—patron I call!

11 Give, from the essay on *Travel*, Bacon's advice to the young man who would put his travel into a little room, and in short time would gather much.

12 Show, from the *Conciliation with the Colonies*, how the religion prevalent in the northern colonies and the slavery in the southern colonies promoted the spirit of liberty.

13 Give a sketch of the life of Carlyle.

14 Macaulay, in his *Essay on Bacon*, refers to Lord Bacon as a man "who was fearful even to a fault of offending the powerful." Give an account of an incident in Bacon's political career illustrating this statement.

15 Show how *each* of the following is connected with the literature studied in this course: Sparta, Glastonbury, Lake Lemman, Rome, Naples.

High School Department

175TH EXAMINATION

AMERICAN SELECTIONS

Tuesday, September 23, 1902 — 9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Give, from the *Last of the Mohicans*, an account of the circumstances under which Heyward and Hawkeye first met and show how this meeting affected the plot of the story.

2 Sketch the life of Hawthorne, showing the influence of his ancestors and of his early life on the story of the *House of the Seven Gables*.

3 Show how three of the following characteristics are illustrated in *Thanatopsis*: sensibility to nature, sublimity and majesty, pensive melancholy, resignation.

4 Give, from *My Garden Acquaintance*, Lowell's answer to Count Gurowski's statement that we have no singing birds in this country.

5 Give the historical facts that form the basis of *A Glance Behind the Curtain*.

6 Give, from the *Commemoration Ode*, the substance of what Lowell says concerning truth.

7 Describe the scene to which Longfellow refers in the following quotation from the *Hanging of the Crane*:

What see I now? The night is fair,
The storm of grief, the clouds of care,
The wind, the rain, have passed away.

8 Relate the circumstances that brought about the changes in the character of Lars, showing their influence on him.

9 Give, from *Reveries of a Bachelor*, an outline of the sketch entitled "Home."

10 Give an account of the life of Alhamar, the founder of the Alhambra.

11 Emerson says, in the essay on *Nature*, "Not less remarkable is the overfaith of each man in the importance of what he has to do or say."

Show, with illustrations, how Emerson justifies this overfaith.

12 Give, from the *Autobiography*, Franklin's account of the founding of the University of Pennsylvania.

13 Give, from the *Farewell Address to the People*, Washington's views in regard to unity of government.

14 Lincoln says, in his *Gettysburg Address*, "We are met on a great battlefield of that war." Give a detailed account of the meeting referred to in this statement.

15 Write on one of the following: (a) the story of Clifford Pyncheon, (b) Cooper's delineation of women as shown in the *Last of the Mohicans*, (c) the theme of the *Present Crisis*.

AMERICAN SELECTIONS

Tuesday, January 27, 1903 — 9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Show in detail how Cooper finally disposes of the following characters: Cora Munro, Uncas, Magua, David Gamut, Heyward.

2 Give, from the *House of the Seven Gables*, an account of the discovery of the Indian deed and explain the connection of this deed with the story.

3 Compare Phoebe Pyncheon with Alice Munro as to (a) personal appearance, (b) character.

4 Write at least 75 words on *Thanatopsis*, touching on the following: (a) development of theme, (b) imagery.

5 State the purpose and describe the plan of *A Glance Behind the Curtain*.

6 Show in connection with the *Commemoration Ode*, Lowell's (a) skill in portraiture, (b) patriotism, (c) esteem for the heroes of war.

7 Give, from the *Hanging of the Crane*, a description of the golden wedding and show why this is an appropriate ending for the poem.

8 Describe the scene of the combat between Lars and Per.

9 Give, from *Reveries of a Bachelor*, a sketch of the contents of "the packet of Bella" sent to Paul.

10 Give an account of the visit of the Rose of the Alhambra to the Spanish court.

11 Show, from the essay on *Nature*, how the care of nature over man is revealed in (a) the child's desire for play, (b) excess of fear.

12 Sketch the life and character of Emerson.

13 Give, from the *Autobiography*, an account of the Reverend Mr Whitefield.

14 Describe, from the *Farewell Address*, the evils resulting from (a) permanent antipathies against particular nations, (b) passionate attachments for particular nations.

15 Mention the poem from which each of *two* of the following quotations is taken and explain the allusions in the quotations selected:

a Take the wings
Of morning, pierce the Barcan wilderness,
Or lose thyself in the continuous woods
Where rolls the Oregon.

**Slavery, the earth-born Cyclops, fellest of the giant brood,
 Sons of brutish Force and Darkness, who have drenched the
 earth with blood,
 Famished in his self-made desert, blinded by our purer day,
 Gropes in yet unblasted regions for his miserable prey.**

c The folk of Ulvik knew, from many a tale
Of feud and fight, from still transmitted hates
And old Berserker madness in their blood,
What issue hung.

d But some day the live coal behind the thought,
Whether from Baal's stone obscene,
Or from the shrine serene
Of God's pure altar brought,
Bursts up in flame.

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178TH EXAMINATION

AMERICAN SELECTIONS

Tuesday, June 16, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Describe, from the *Last of the Mohicans*, the interview between Munro and Montcalm at Fort William Henry and state the results of this interview.

2 Show the connection of the Maule family with the story of the *House of the Seven Gables*.

3 Give, from *Thanatopsis*, the substance of what Bryant says in regard to (a) companionship in death, (b) the way to approach death.

4 Give a sketch of the life of Lowell.

5 Express the thought of the following in prose:

New occasions teach new duties; Time makes ancient good uncouth;

They must upward still, and onward, who would keep abreast of Truth;

Lo, before us gleam her camp-fires! we ourselves must Pilgrims be, Launch our Mayflower, and steer boldly through the desperate winter sea,

Nor attempt the Future's portal with the Past's blood-rusted key.

6 Show, from *My Garden Acquaintance*, how Lowell contradicts the statement that birds in their little nests agree and relate an incident given by him to illustrate his opinion.

7 Give, from the *Hanging of the Crane*, a description of (a) the baby boy, (b) the little Princess.

8 Mention, from *Lars*, three customs peculiar to the Norwegians, illustrating each custom by reference to the poem.

9 Write the story of Enrica as given in *Reveries of a Bachelor*.

10 Give, from the *Alhambra*, an account of one of the public fêtes of Granada.

11 Give, from the essay on *Nature*, the substance of what Emerson says in regard to identity in nature.

12 Describe in detail Franklin's efforts to imitate the literary style of the *Spectator*.

13 Give, from the *Farewell Address*, the substance of what Washington says in regard to his resolution not to be a candidate for reelection.

14 In the *Gettysburg Address* Lincoln says, "But in a larger sense we can not dedicate, we can not consecrate, we can not hallow this ground."

Explain what Lincoln means by this statement, and give, by quotation or otherwise, an account of what he says in regard to dedication.

15 Mention the work from which each of *two* of the following quotations is taken and explain the meaning of each quotation selected:

- a We sit here in the Promised Land
That flows with Freedom's honey and milk;
But 't was they won it, sword in hand,
Making the nettle danger soft for us as silk.
- b Each little life
Thinks the great axle of the universe
Turns on its fate, and finds impertinence
In joy or grief conflicting with its own.
- c At the gates of the forest, the surprised man of the world is
forced to leave his city estimates of great and small, wise and
foolish. The knapsack of custom falls off his back with the
first step he takes into these precincts. Here is sanctity which
shames our religions, and reality which discredits our heroes.
- d Towards the preservation of your government, and the permanency of your present happy state, it is requisite, not only that you steadily discountenance irregular oppositions to its acknowledged authority, but also that you resist with care the spirit of innovation upon its principles, however specious the pretexts.

Monday, January 26, 1903—1.15 to 4.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

MORT DE LANNES

Lannes, en parcourant le front de sa ligne, fut frappé d'un boulet qui lui emporta les deux jambes. A la nouvelle de ce fatal événement, l'empereur laissa éclater la plus vive douleur. Il courut vers le brancard que soutenaient douze vieux grenadiers. Napoléon se précipita sur son ami qui était sans connaissance. "Lannes!" s'écria-t-il, "Lannes! reviens à toi! C'est ton ami! ton empereur! c'est Bonaparte! c'est ton ami!" Lannes ouvrit les yeux, reconnut l'empereur, et leurs sanglots se confondirent. "Dans quelques heures," dit-il d'une voix mourante, "vous aurez perdu l'homme qui vous a le plus aimé." Lannes mourut le 31 Mai 1809.

emporter = take off, *éclater* = burst forth, *brancard* = litter, *sanglot* = sob

3-4 Translate into English:

LE ROI ALFRED ET L'ENFANT TROUVÉ

Un jour que le roi Alfred se promenait à cheval dans un bois, il entendit des cris qui venaient du haut d'un arbre. Il dit à un de ses officiers d'aller voir quelle était la cause de ces cris. Celui-ci découvrit qu'ils portaient de l'aire d'un aigle. Il grimpa donc sur l'arbre et trouva dans le nid un jeune enfant entouré d'un manteau de pourpre. L'officier prit l'enfant et le montra au roi qui ordonna de le porter dans son palais et le nomma Aiglon en souvenir de l'endroit où il avait été trouvé. Aiglon dont on ne connut jamais les parents grandit et devint un des serviteurs les plus fidèles du roi.

aire = aery, *grimper* = climb, *entourer* = wrap, *endroit* = place

5-6 Translate into English:

LA VIEILLE ET LE CAVALIER

Un soir, comme la pluie tombait à flots, on dit qu'une vieille femme qui habitait une pauvre cabane dans la forêt de Saint-Germain, entendit frapper à sa porte; elle ouvrit, et vit un cavalier qui lui demanda l'hospitalité. Elle mit son cheval

dans une grange et le fit entrer. A la clarté d'une lampe fumeuse, elle vit que c'était un jeune gentilhomme. La personne annonçait la jeunesse, l'habit disait la qualité. La vieille femme alluma du feu et demanda au gentilhomme s'il désirait manger quelque chose. Un estomac de seize ans est comme un cœur du même âge, très avide et peu difficile. Le jeune homme accepta.

grange=barn, *fumeux*=smoky, *allumer*=light, *peu difficile*=not very hard to please

7 Translate into French: (a) It is the prettiest garden that you can find in the town, (b) I shall send it to you, (c) Wait a moment for us, (d) During the conversation they stood, (e) Whose hat is this? Nobody knows.

8 Conjugate the following in the plural: *sentir* in the present indicative active, *pouvoir* in the imperfect indicative, *s'admirer* in the future indicative. [Do not omit the pronouns.]

9 Illustrate the following by original French sentences of at least *six* words each: possessive adjective, possessive pronoun, demonstrative adjective, demonstrative pronoun, indefinite pronoun.

10 Write the plural of *le château fort*, *le travail utile*, *le beau bijou*, *le bleu ciel*, *le vieux cheval*.

11 Translate into English: (a) Comment vous portez-vous? Je me porte très bien, (b) Elle vient d'avoir peur, (c) Qu'il parte tout de suite, (d) Je n'ai encore rien vu de pareil dans aucune ville, (e) Il se fait tard, et il faut que j'aille.

12 State the rule for the agreement of (a) an adjective modifying two masculine singular nouns, (b) an adjective modifying two singular nouns of different genders, (c) a present active participle modifying a feminine plural noun. Illustrate each rule by an original French sentence.

13 Form an adverb from *beau*, *poli*, *commun*. Write the feminine of *franc*, *gros*, *complet*, *frais*, *favori*, *corrupteur*, *neuf*.

14 Write the third person, singular and plural, of *each* of the compound tenses of the indicative active of *chanter*. Conjugate the imperative active of *chanter*.

15 Write from memory and translate at least 10 consecutive lines of *one* of the following: *La feuille desséchée*, *Le petit Pierre*, *Conseils à un enfant*. *Etoiles filantes*.

High School Department

178TH EXAMINATION

FRENCH—First Year

Monday, June 15, 1903—1.15 to 4.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

L'AMÉRICAIN

Un Américain, qui voyageait en Europe avec un Anglais de ses amis, restait indifférent à tout ce qu'on lui montrait de remarquable. "Comment trouvez-vous ce monument?" lui disait l'Anglais. "C'est bien," répondait l'Américain, "mais nous en avons d'aussi beaux en Amérique." "Comment trouvez-vous cette église, ce théâtre, cette place, ce jardin, cette montagne, cette rivière?" "Nous avons tout cela en Amérique." Il arrive enfin à Naples en face du mont Vésuve. "Eh bien!" lui dit l'Anglais triomphant, "avez-vous cela en Amérique?" "Non," répliqua l'Américain sans se déconcerter; "mais nous avons la cataracte du Niagara qui peut éteindre ce volcan en cinq minutes."

éteindre=put out

3-4 Translate into English:

LES ARBRES DE LA FORÊT

Les arbres d'une forêt sont plus près les uns des autres que les arbres fruitiers des jardins, et ils sont aussi d'une tout autre espèce. Quelques-uns ont de belles feuilles vertes, par exemple le chêne; d'autres, comme le pin, ont des aiguilles pointues. Les arbres qui ont de belles feuilles vertes semblent plus beaux, mais ils ne restent pas toujours ainsi, car en hiver et même déjà en automne, ils perdent leur feuillage, tandis que le pin et le sapin gardent leurs aiguilles pendant toute l'année.

Quand un arbre devient trop vieux, on le coupe; les bûcherons viennent avec leurs haches, donnent de grands coups sur le tronc jusqu'à ce qu'il tombe.

près=close, *espèce*=kind, *chêne*=oak, *sapin*=fir, *bûcheron*=wood-cutter

5-6 Translate into English:

CENDRILLON

Alors ses deux sœurs la reconnurent pour la belle personne qu'elles avaient vue au bal. Elles se jetèrent à ses pieds, pour

lui demander pardon de tous les mauvais traitements qu'elles lui avaient fait souffrir. Cendrillon les releva, et leur dit en les embrassant qu'elle leur pardonnait de bon cœur, et qu'elle les priait de l'aimer bien toujours. On la mena chez le jeune prince, parée comme elle était. Il la trouva encore plus belle que jamais, et, peu de jours après, il l'épousa. Cendrillon, qui était aussi bonne que belle, fit loger ses deux sœurs au palais, et les maria, dès le jour même, à deux grand seigneurs de la cour.

relever = raise, *parer* = dress, *épouser* = marry, *dès* = as early as

7 Translate into French: (a) The pen that was lost yesterday has been found, (b) There is the child to whom you gave it, (c) I should like to see him before he goes away, (d) Do not listen to him. Listen to me, (e) Have you any fruit? I have some.

8 Conjugate the following in the plural: *voir* in the present indicative active, *tenir* in the preterit (past definite) indicative active, *se joindre* in the present subjunctive. [Do not omit the pronouns.]

9 State *three* rules for the position of adjectives. Write an original French sentence illustrating each rule mentioned.

10 Translate into French: (a) the hour of your dinner, (b) the three old tables, (c) the happy boys and girls, (d) her friendship, (e) some ink (partitive).

11 Give the reason for each subjunctive in the following: (a) Il faut que vous restiez ici, (b) Je ne crois pas qu'il puisse venir, (c) Voilà le meilleur homme que je connaisse, (d) Bien qu'il soit pauvre, il est honnête homme, (e) Je doute qu'il vous obéisse.

12 Distinguish (a) *avant* and *devant*, (b) *porter* and *amener*, (c) *campagne* and *pays*, (d) *soir* and *soirée*, (e) *tu* and *vous* (used of one person).

13 Mention the relative pronouns, giving the use of each.

14 Write the second person, singular and plural, of each of the simple (uncompounded) tenses of the indicative and subjunctive of *fuir*.

15 Write from memory and translate at least 10 consecutive lines of *one* of the following: *Le colimaçon*, *Partant pour la Syrie*, *Le petit Pierre*, *Trois fils d'or*.

University of the State of New York

High School Department

176TH EXAMINATION

FRENCH—Second Year

Monday, January 26, 1903—9.15 a. m. to 12.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

JEANNE D'ARC

Cependant sa bannière était restée dans le fossé, au pied de l'échelle d'où Jeanne venait d'être renversée. Daulon, son chevalier, s'en étant aperçu, courut avec quelques hommes d'armes pour reprendre cette dépouille qui aurait trop enorgueilli les Anglais. Jeanne y courut à cheval après eux. Au moment où Daulon remettait dans les mains de sa maîtresse l'étendard, ses plis, agités par le mouvement du cheval et par le vent, se déroulèrent au soleil et parurent aux Français un signal que Jeanne leur faisait pour les rappeler à son secours.

—Lamartine

fossé=moat, *échelle*=scaling-ladder, *dépouille*=booty

3-4 Translate into English:

VOYAGE AUTOUR DE MA CHAMBRE

Les premiers rayons du soleil viennent se jouer dans mes rideaux. Je les vois, dans les beaux jours d'été, s'avancer le long de la muraille blanche, à mesure que le soleil s'élève: les ormes qui sont devant ma fenêtre les divisent de mille manières, et les font balancer sur mon lit, couleur de rose et blanc, qui répand de tous côtés une teinte charmante par leur réflexion. J'entends le gazouillement confus des hirondelles et des autres oiseaux qui habitent les ormes: alors mille idées riantes occupent mon esprit; et, dans l'univers entier, personne n'a un réveil aussi agréable, aussi paisible que le mien.

rideau=curtain, *orme*=elm

—Xavier de Maistre

5-6 Translate into English:

LE ROMAN D'UN JEUNE HOMME PAUVRE

Elle secoua la tête; mais au même instant deux larmes se détachaient lentement de ses grands yeux: elle les sentit couler

sur ses joues, fit un geste de dépit; puis, se jetant tout à coup sur la croix de granit, dont la base lui servait de piédestal, elle l'embrassa de ses deux mains, appuya fortement sa tête contre la pierre, et je l'entendis sangloter convulsivement. Je ne crus devoir troubler par aucune parole le cours de cette émotion soudaine, et je m'éloignai de quelques pas avec respect. Après un moment, la voyant relever le front et replacer d'une main distraite ses cheveux dénoués, je me rapprochai.—*Feuillet*

7 Translate into French: (a) I wish that it would grow warm soon, (b) They like this better than that, (c) It happened about a year ago, (d) Let him stay here till morning, (e) Your sisters have returned.

8 Translate into French: (a) He ought to be punished for such a deed, (b) Think before you act, (c) She is too tired to be questioned, (d) The steamer leaves today for the United States, (e) You are right.

9 Conjugate the following in the plural: *asseoir* in the present indicative active, *boire* in the imperfect indicative active, *conduire* in the preterit (past definite) indicative active, *rire* in the imperfect subjunctive, *dire* in the imperative active.

10 State and illustrate by original French sentences *three* rules for the position of adverbs.

11 Mention and translate (a) *five* verbs usually followed by the subjunctive, (b) *five* conjunctions usually followed by the subjunctive.

12 Translate into English: (a) Arrangez cette affaire à l'amiable, (b) Il s'est bien tiré d'affaire, (c) Un tiens vaut mieux que deux tu l'auras, (d) Je lui en sais bon gré, (e) Vous vous ferez connaître, (f) Voilà tout ce qu'il me reste, (g) Nous y persistons tous deux, (h) Je crois que oui, (i) Il faut que vous vous leviez, (j) A qui en veut-il?

13 Explain fully the position of the personal pronoun when used as (a) direct object, (b) indirect object.

14 Write the present active participle and the past participle of *suffire*, *suiivre*, *vaincre*, *valoir*, *vivre*.

15 Write from memory and translate at least 10 consecutive lines of *one* of the following: *Adieux de Marie Stuart*, *Le vase brisé*, *Les deux routes*, *Mon habit*.

Monday, June 15, 1903—9.15 a. m. to 12.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

PIERRE ET CAMILLE

De cette façon, Camille et son oncle étaient venus à Paris. Le chevalier, instruit de ce voyage par une lettre de l'oncle Giraud, l'approuva. Au retour de sa tournée en Hollande, il avait rapporté à Chardonneux une mélancolie tellement profonde, qu'il lui était presque impossible de voir qui que ce fût, même sa fille. Il semblait vouloir fuir tout être vivant, et chercher à se fuir lui-même. Presque toujours seul, à cheval dans les bois, il fatiguait son corps outre mesure pour donner quelque repos à son âme. Un chagrin caché, incurable le dévorait. Il se reprochait au fond du cœur d'avoir rendu sa femme malheureuse pendant sa vie.—*Musset*

3-4 Translate into English:

TROIS MOIS SOUS LA NEIGE

Une idée mène à l'autre. Cette fois mon grand-père a bien voulu parler le premier; il savait que je profiterais autant que lui de sa proposition. Il m'a engagé à enlever la neige devant la fenêtre. Il faudra plus de temps, parce que l'amas en est plus considérable dans cet endroit; d'ailleurs, pour atteindre notre but et nous donner du jour, il faut que la pente soit moins rapide de part et d'autre. J'ai commencé la besogne, et je n'ai pas souffert que mon grand-père s'en mêlât. Il n'a pas insisté, sachant combien sa santé m'est précieuse.—*Porchat*

amas=mass, *pente*=slope

5-6 Translate into English:

L'ABBÉ CONSTANTIN

Cela fait, il s'engagea au premier régiment de chasseurs d'Afrique, eut la chance de faire, pour ses débuts, partie d'une petite colonne expéditionnaire dans le Sahara, se conduisit bravement, devint très rapidement maréchal des logis et, au

bout de trois années, allait être nommé sous-lieutenant, quand il quitta le service et revint à Paris. Mais il ne passait à Paris que trois ou quatre mois. Sa mère lui faisait une pension de trente mille francs et lui avait déclaré que jamais, elle vivante, il n'aurait un sou de plus avant son mariage. Il connaissait sa mère et savait qu'il fallait tenir ses paroles pour choses sérieuses.—*Haltvy*

maréchal des logis=sergeant

7 Translate into French: (a) I do not believe that it is seven o'clock already, (b) The carpenter broke his left arm this morning, (c) When the weather gets warmer and spring is really here, the birds begin to return from the south, (d) Think of us often, (e) Do you speak of her or of him?

8 Translate into French: (a) Hugo dared to be an honest man, (b) Let us love one another with all our hearts and souls, (c) Return before night, (d) These apples are greener than those are, (e) Have you been in Paris? Yes, I have been there.

9 Conjugate the following in the singular: *envoyer* in the preterit (past definite) indicative active, *mourir* in the present subjunctive; the following in the plural: *rompre* in the present indicative active, *résoudre* in the imperfect indicative active. Conjugate the imperative active of *écrire*.

10 Mention *five* cases in which *ne* may be used without *pas* or *point*. Illustrate by original French sentences.

11 Translate into French: (a) Of what do you speak? (b) Who is there? (c) Whom do you know? (d) To whom are you speaking? (e) What do you wish to do?

12 Mention *five* adjectives whose meanings depend on their position before or after the noun. Give the meanings of the adjectives when (a) placed before the noun, (b) placed after the noun.

13 Mention the conjunctive and the disjunctive personal pronouns. Explain the uses of the disjunctive personal pronouns.

14 Write the third person singular and the second person plural of the simple (uncompounded) tenses of the indicative and conditional active of *mouvoir*.

15 Write from memory and translate at least 10 consecutive lines of *one* of the following: *Mon habit, Le corbeau et le renard, La source, La vase brisé*.

High School Department

176TH EXAMINATION

FRENCH—Third Year

Monday, January 26, 1903—1.15 to 4.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

IPHIGÉNIE

Achille—Un bruit assez étrange est venu jusqu'à moi,
Seigneur; je l'ai jugé trop peu digne de foi.
On dit, et sans horreur je ne puis le redire,
Qu'aujourd'hui par votre ordre Iphigénie expire,
Que vous-même, étouffant tout sentiment humain,
Vous l'allez à Calchas livrer de votre main.
On dit que sous mon nom à l'autel appelée,
Je ne l'y conduisais que pour être immolée;
Et que d'un faux hymen nous abusant tous deux,
Vous vouliez me charger d'un emploi si honteux.—*Racine*

3-4 Translate into English:

LE DROIT INTERNATIONAL

Le Grand Frédéric affectait d'être sceptique en matière de droit international. Mais de ce qu'une loi peut être violée, il est excessif de conclure qu'elle n'existe pas. Il y a une sanction aux lois internationales dans le sentiment public qui veut désormais, qu'à l'origine de toutes les guerres, chacun des adversaires cherche à faire retomber la responsabilité de l'aggression sur l'autre. Il y a même d'autres sanctions plus pratiques que celles qui résultent de l'opinion. On a vu les puissances neutres en cas de conflit entre deux nations se liguier pour faire respecter les droits de leurs nationaux et, en orient, les puissances civilisées se sont souvent unies pour imposer aux nations encore barbares le respect des droits de l'humanité.—*Cambon*

5-6 Translate into English:

LA MÉTROMANIE

Mondor—Vous en parlez, monsieur, un peu trop à votre aise.
Vous avez les plaisirs; et moi, tout l'embarras.
Vous et vos créanciers, je vous ai sur les bras.
C'est moi qui les écoute, et qui les congédie.
Je suis las de jouer, pour vous, la comédie,

De vous celer, d'oser remettre au lendemain,
 Pour emprunter encor, avec un front d'airain.
 Ma probité répugne à ces façons de vivre.
 De ce monde aboyant cherchez qui vous délivre.
 Pour moi, plein désormais d'un juste repentir,
 J'abandonne le rôle, et ne veux plus mentir.—*Piron*

aboyer=dun

7 Translate into French: Victor Hugo's great heart has ceased to beat for more than seventeen years, yet there are still many critics that judge him harshly, accusing him of pride and selfishness; proud he may have been, but could a man that so assisted the unfortunate have been selfish?

8 Translate into French: "Help, help! Captain," cried a soldier, "help, I have a prisoner." "Very well," the captain called to him, "bring him here." "I wish I could," answered the soldier, "but he won't let me."

9 Mention *eight* verbs (not reflexive) that require the auxiliary *être*. Conjugate the pluperfect indicative of *one* of the verbs mentioned.

10 Select 10 of the following authors and mention a novel or a drama by each: Molière, Corneille, Victor Hugo, Dumas fils, Sand, About, Honoré de Balzac, Le Sage, Madame de Staël, Mérimée, Zola, Bernardin de Saint Pierre, Beaumarchais, Feuillet, Daudet.

11 Translate into French, using *ce* (*c'*) for the pronoun it: (a) It is these men, (b) It is she, (c) It is our wish and our hope, (d) It is I, (e) Is it they?

12 Write in French about 75 words on the life and works of *one* of the following: Jean Jacques Rousseau, Piron, Alfred de Musset.

13 Distinguish in meaning (a) *le souris* and *la souris*, (b) *le page* and *la page*, (c) *le tour* and *la tour*, (d) *le livre* and *la livre*, (e) *le mémoire* and *la mémoire*.

14 Write the ending of the second person plural of each of the simple (uncompounded) tenses of the indicative, conditional and subjunctive active of the regular conjugations (with infinitive ending in *er*, *ir*, *re*).

15 Write from memory and translate at least 10 consecutive lines of *one* of the following: *Hymne de l'enfant à son réveil*, *Le retour dans la patrie*, *La mort de Jeanne d'Arc*, *Mes bœufs*.

High School Department

178TH EXAMINATION

FRENCH—Third Year

Monday, June 15, 1903—1.15 to 4.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

CINNA

Cinna—Si l'amour du pays doit ici prévaloir,
C'est son bien seulement que vous devez vouloir;
Et cette liberté, qui lui semble si chère,
N'est pour Rome, seigneur, qu'un bien imaginaire,
Plus nuisible qu'utile, et qui n'approche pas
De celui qu'un bon prince apporte à ses états:
Avec ordre et raison les honneurs il dispense,
Avec discernement punit et récompense,
Et dispose de tout en juste possesseur,
Sans rien précipiter de peur d'un successeur.—*Corneille*

3-4 Translate into English:

LES FEMMES SAVANTES

Henriette—C'est sur le mariage où ma mère s'apprête
Que j'ai voulu, Monsieur, vous parler tête à tête;
Et j'ai cru, dans le trouble où je vois la maison,
Que je pourrais vous faire écouter la raison.
Je sais qu'avec mes vœux vous me jugez capable
De vous porter en dot un bien considérable;
Mais l'argent, dont on voit tant de gens faire cas,
Pour un vrai philosophe a d'indignes appas;
Et le mépris du bien et des grandeurs frivoles
Ne doit point éclater dans vos seules paroles.—*Molière*

faire cas de=set value on, *appas*=attractions

5-6 Translate into English:

GIL BLAS

Enfin nous nous mîmes à table fort gaiement. Mes poètes commencèrent à s'entretientir d'eux-mêmes et à se louer. Celui-ci, d'un air fier, citait les grands seigneurs et les femmes

de qualité dont sa muse faisait les délices; celui-là, blâmant le choix qu'une académie de gens de lettres venait de faire de deux sujets, disait modestement que c'était lui qu'elle aurait dû choisir. Il n'y avait pas moins de présomption dans les discours des autres. Au milieu du souper, les voilà qui m'assassinent de vers et de prose. Ils se mettent à réciter à la ronde chacun un morceau de ses écrits.—*Le Sage*

délices=delight

7 Translate into French: Daudet joins to a naturally ardent nature an excellent spirit of observation. His works, full of truth in description and of delicacy in detail, attain a remarkable depth in the study of character. His elegant, graphic style charms by its very naturalness and often reminds us of Dickens.

8 Translate into French: Brissac appeared before the empress one day, wearing the decoration of a new order. On this decoration were represented the lion of Cassel, the horse of Brunswick, the dragon of Denmark and other emblems borrowed from the animal kingdom. "What!" cried the empress, "Are there only beasts in that order?"

9 From what infinitive is *each* of the following and where is the form found: *nous partirions, je pourvoie, je mus, ils plaisent, il pleut?*

10 Mention, with illustrations, the rules for the use and position of the pronouns *en* and *y*.

11 Translate into English: (a) Je ne fais que m'amuser, (b) Prenez garde de tomber, (c) Il s'en faut d'un jour, (d) Ne vous en allez pas encore, (e) Avez-vous de ses nouvelles? (f) Ils iront à sa rencontre, (g) Je m'en souviens, (h) Cet habit lui va bien, (i) Qu'est-elle devenue? (j) Qu'avez-vous?

12 Write in French about 75 words on the life and works of *one* of the following: *Corneille, Molière, Beaumarchais*.

13 Distinguish in use (a) the imperfect, the preterit (past definite) and the past indefinite, (b) the pluperfect and the past anterior.

14 Write the second person plural of all the tenses of the indicative of *s'asseoir*.

15 Write from memory and translate at least 10 consecutive lines of *one* of the following: *Les souvenirs du peuple, L'écho, Le chêne et le roseau, La Marseillaise*.

University of the State of New York

High School Department

175TH EXAMINATION

GERMAN—First Year

Tuesday, September 23, 1902—9.15 a. m. to 12.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

DIE DONAU

Die Donau, Europas gewaltigster Strom, hat ihren Ursprung bei Donaueschingen. Auf dem Hofe des Fürsten von Fürstenberg befindet sich ein Brunnen, zu dem man auf Stufen hinabsteigt. Hier unten wallt die Donauquelle aus der Erde. Bald wird das Bächlein ein mächtiger Fluß und bahnt sich in mächtigen Fluten durch verschiedener Herren Länder in einer Länge von 2780 Kilometer den Weg bis zum Schwarzen Meer. Die Donau ist 2574 Kilometer schiffbar, wovon auf Deutschland ein kleiner Teil entfällt.

Donau=Danube river, *Stufe*=step, *sich bahnen*=rush on

3-4 Translate into English:

L'ARRABBIATA

Es war erst eine Stunde nach Mittag, und schon saß Antonino zwei Stunden lang auf einer Bank vor der Fischerschenke. Es mußte ihm was durch den Sinn gehen, denn alle fünf Minuten sprang er auf, trat in die Sonne hinaus und überblickte sorgfältig die Wege, die links und rechts nach den zwei Inselstädtchen führen. Das Wetter sei ihm bedenklich, sagte er dann zu der Wirtin der Osterie. Es sei wohl klar, aber er kenne diese Farbe des Himmels und Meers. Gerade so hab' es ausgesehn, eh der letzte große Sturm war, wo er die englische Familie nur mit Not ans Land gebracht habe. Sie werde sich erinnern.

l'Arrabbiata=crosspatch, *Schenke*=inn, *Osterie*=inn

5-6 Translate into English:

UNDINE

Es mögen nun wohl schon viele hundert Jahre her sein, da gab es einmal einen alten guten Fischer, der saß eines schönen Abends vor der Thür und flickte seine Netze. Er wohnte

aber in einer überaus anmutigen Gegend. Der grüne Boden, worauf seine Hütte gebaut war, streckte sich weit in einen grossen Landsee hinaus, und es schien eben so wohl, die Erdzunge habe sich aus Liebe zu der bläulich klaren, wunderhellen Flut in diese hineingedrängt, als auch, das Wasser habe mit verliebten Armen nach der schönen Aue gegriffen, nach ihren hoch schwankenden Gräsern und Blumen und nach dem erquicklichen Schatten ihrer Bäume.

flicken = mend, *anmutig* = pleasant, *schwankend* = waving, *erquicklich* = refreshing

7 Translate into German:

a I came back in order to help you.

b Today is the twenty-third of September.

c I should like three pounds and a half.

d If he had not gone to the church, he would be here now.

e What have you seen that is pretty?

8 Write the third person, singular and plural, of (a) the present indicative of *fechten*, (b) the perfect indicative active of *studieren*, (c) the imperfect subjunctive active of *lesen*. Write the imperative of *sich freuen*, the participles of *werfen*.

9 Write the synopsis of *bringen* in the third person singular of the indicative and subjunctive active.

10 Decline in the singular *eine kalte Nacht*; in the plural *dieser edle Soldat*.

11 Write the principal parts of *dürfen*, *messen*, *schelten*, *weisen*, *winden*.

12 Change the following sentences to the passive form: (a) Sie sang ein schönes Lied, (b) Er baut ein Haus, (c) Der Hund hat ihn gebissen, (d) Wir werden sie mitbringen, (e) Er hatte mein Buch gefunden.

13 Mention *two* separable prefixes, *two* inseparable prefixes, *one* prefix that may be either separable or inseparable. Write sentences containing verbs formed with the prefixes mentioned.

14 Write original German sentences containing the following: *etwas*, *hin*, the relative pronoun *was*, the adverb *also*, the conjunction *wenn*.

15 Write from memory and translate 10 consecutive lines of one of the following: *Schwertlied*, *Das Schloss am Meere*, *Sinn-sprüche*, *Du, du, liegst mir am Herzen*.

High School Department

176TH EXAMINATION

GERMAN—First Year

Tuesday, January 27, 1903—9.15 a. m. to 12.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

BRÜDERCHEN UND SCHWESTERCHEN

Nun sprang das Rehchen hinaus, und war ihm so wohl, und war so lustig in freier Luft. Der König und seine Jäger sahen das schöne Tier und setzten ihm nach, aber sie konnten es nicht einholen, und wenn sie meinten, sie hätten es gewifs, da sprang es über das Gebüsch weg und war verschwunden. Als es dunkel ward, lief es zu dem Häuschen, klopfte und sprach: "Mein Schwesterlein, lass' mich herein." Da ward ihm die kleine Thür aufgethan, es sprang hinein und ruhte sich die ganze Nacht auf seinem weichen Lager aus.

Rehchen=fawn, *einholen*=overtake, *Lager*=couch

3-4 Translate into English:

IN DER WEIHNACHTSZEIT

"Kinderlärm? Haben die Kinder Lärm gemacht?" fragte die Frau erschrocken, "sie haben sich doch bisher so ruhig verhalten.—Ich habe ihnen die Wohnung erst gar nicht vermieten wollen," setzte sie entschuldigend hinzu, als sie sah, wie er ungeduldig mit dem Fusse stampfte, "aber sie gefiel der jungen Frau so gut, weil sie ruhig ist und hell für ihre Arbeiten. Sie malt auf Porzellan, aber sehr schön, das mufs man sagen. Und weil sie so freundlich bat, und das junge Fräulein, ihre Schwester, auch, hatte ich das Herz nicht, sie fortzuschicken, aber wegen der Kinder habe ich es gleich gesagt."

vermieten=rent, *entschuldigen*=apologize

5-6 Translate into English:

WIE'S DER ALTE MACHT, IST'S IMMER RECHT

Auf dem Lande bist du gewifs schon gewesen; du wirst wohl auch so ein recht altes Bauernhaus mit einem Strohdach

gesehen haben. Moos und Kräuter wachsen von selbst auf dem Dache; ein Storchnest befindet sich auch auf dem Gipfel desselben. Die Wände des Hauses sind schief; die Fenster sind niedrig und nur ein einziges Fenster ist so eingerichtet, daß es geöffnet werden kann; der Backofen ragt aus der Wand hervor; der Fliederbaum hängt über den Zaun hinaus und unter seinen Zweigen am Fuße des Zaunes ist ein Teich, in welchem einige Enten liegen.

schief=crooked, *einrichten*=arrange, *hervorragen*=project, *Flieder*=elder, *Zaun*=hedge, *Teich*=pond

7 Translate into German: (a) That is your hat, this is mine, (b) The snow is lying deep on the mountain, (c) He threw the book under the table, (d) She said that she did it for my sake, (e) I saw him fall as I was going along the street.

8 Conjugate, in the singular, the present indicative active of *befehlen*, the imperfect indicative active of *heißen*, the pluperfect indicative of *fallen*, the imperfect subjunctive active of *greifen*. Write the imperative active of *essen*.

9 Write the synopsis of *vorlesen* in the third person singular of the indicative and subjunctive active.

10 Decline, in the singular, the German for a small head, the best queen.

11 Compare *dunkel*, *alt*, *viel*. Mention two ways in which adverbs may be formed and illustrate each.

12 Write the principal parts of *erheben*, *geben*, *schwimmen*, *stoßen*, *zerbrechen*.

13 Translate into English: (a) Er darf es nicht thun, (b) Er kann es nicht thun, (c) Ich möchte wohl wissen, (d) Er wollte eben sagen, (e) Was soll ich hier?

14 Write and translate original German sentences containing (a) an adverb of time and an adverb of place, (b) a predicate adjective, (c) an accusative expressing time, (d) a conditional clause, (e) an infinitive with *zu*.

15 Write from memory and translate 10 consecutive lines of one of the following: *Die Lorelei*, *Der Wirtin Töchterlein*, *Heidenröslein*, *O Straßburg*.

University of the State of New York

High School Department

177TH EXAMINATION

GERMAN—First Year

Friday, March 27, 1903—9.15 a. m. to 12.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

KÖNIG FRIEDRICH UND SEIN NACHBAR

König Friedrich der Zweite von Preussen, der von 1740 bis 1786 regierte, hatte sechs Stunden von Berlin ein schönes Schloß und wäre auch gern darin gewesen, wenn nur nicht daneben eine unruhige Mühle gestanden hätte. Denn erstens sehen ein königliches Schloß und eine Mühle nicht gut aus neben einander. Außerdem aber, wenn der König in seinen besten Gedanken war und nicht an den Nachbar dachte, auf einmal fing die Mühle an zu klappern und das war dem König nicht angenehm. Die Gedanken des Königs störten zwar die Mühle nicht, aber zuweilen störte das Klappern der Räder die Gedanken des Königs.

aussehen=look, *angenehm*=agreeable, *stören*=disturb, *Rad*=wheel

3-4 Translate into English:

DER GARTEN DES PARADIESES

Die Sonne ging jetzt unter; der ganze Himmel wurde zu einer einzigen Goldmasse, welche den Lilien den Schein der herrlichsten Rosen gab, und der Prinz trank von dem schäumenden Wein, welchen die Jungfrauen ihm reichten, und er fühlte eine Glückseligkeit, wie nie zuvor; er sah, wie der Hintergrund des Saales sich öffnete, und der Baum der Erkenntnis strahlte in einem Glanze, daß er davon ganz geblendet war; der Gesang vom Baume her war so süß und lieblich, wie seiner Mutter Stimme, und es war, als ob sie sänge: "Mein Kind, mein vielgeliebtes Kind!"

schäumen=foam, *Erkenntnis*=knowledge

5-6 Translate into English:

DER FIEDELBÖGEN DES NECK

Es war einmal ein junger Knabe, der hieß Frieder und hatte weder Vater noch Mutter. Er war ein bildschönes Kind, und

wenn er vor der Thür auf der Strafe spielte, blieben die Leute stehen und fragten: "Wem gehört der Kleine?" Dann antwortete die alte, mürrische Frau, die ihn mit dünnen Brühen und reichlichen Scheltworten aufzog: "Er ist ein Waisenkind, und das Beste wäre für ihn, wenn ihn der liebe Gott zu sich ins Himmelreich nehmen würde." Frieder aber trug keine Sehnsucht nach dem Himmelreich.

mürrisch = surly, *Brühe* = soup, *reichlich* = abundant, *aufziehen* = rear, *Waisenkind* = orphan, *Sehnsucht* = longing

7 Translate into German:

(a) I was at my cousin's yesterday, (b) He wrote that his sister had been quite ill, (c) Since that time I have not been able to sleep, (d) The man whose horse I bought has died, (e) Did she do that to help me?

8 Conjugate, in the singular, the imperfect subjunctive of *sitzen*, the perfect indicative active of *bitten*, the imperfect indicative active of *aufmachen*, the present indicative of *dürfen*, the pluperfect subjunctive active of *bekommen*.

9 Decline, throughout, the German for *the higher house, their brother*.

10 Write, with article, the nominative and dative singular and the nominative plural of *Bett, Arbeit, Vogel, Sohn, Graf*.

11 Write the principal parts of *raten, werfen, nennen, scheinen, schwören*.

12 Translate into English:

(a) Sie wird heute über acht Tage abreisen, (b) Er möchte es nicht gern glauben, (c) Um ein Viertel auf fünf fahren wir spazieren, (d) Es fehlt mir nichts, (e) Soll ich ihn kommen lassen?

13 Write and translate original German sentences of at least *six* words each, using correctly the following verbs: *wissen, kennen, übersetzen* (inseparable), *übersetzen* (separable), *sich befinden*.

14 Translate into German: (a) The fields on this side of the forest are the largest, (b) That girl is a friend of mine, (c) He met them yesterday when he came from the town, (d) Her parents go into the country every summer, (e) What kind of a coat does he wear?

15 Write from memory and translate *Vergissmeinnicht*, or 10 consecutive lines of *one* of the following: *Das Schloss am Meere, Die Lorelei, Du, du liegst mir am Herzen*.

University of the State of New York

High School Department

178TH EXAMINATION

GERMAN—First Year

Tuesday, June 16, 1903—9.15 a. m. to 12.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

DIE TAUBE

Der Diener wollte ihnen eben sagen, daß er Italienisch verstehe, als er hörte, daß diese Männer keine Pilger, sondern Räuber waren. Sie gehörten zu einer Bande von Räufern, welche der Ritter von Falkenburg aus der Gegend getrieben hatte, und sie wollten sich jetzt rächen.

Ihr Plan war, als Pilger in das Schloß zu gehen. Sie wußten, daß man sie da übernachten lassen würde. Sie wollten nachts ein Licht ins Fenster stellen, zum Zeichen für ihre Verbündeten draußen, daß sie zur Gartenthür kommen sollten. Diese Thür wollten sie dann geräuschlos öffnen, die Verbündeten hereinlassen und dann wollten sie die Einwohner des Schlosses töten, die Räume plündern und endlich das Schloß anzünden.

Pilger=pilgrim, *rächen*=revenge, *Verbündete*=ally, *geräuschlos*=noiselessly, *anzünden*=set fire to

3-4 Translate into English:

BEISPIEL VON ENTHALTSAMKEIT

Alexander der Große kam auf seinem Zuge die Welt zu erobern durch eine lange Sandwüste Asiens, in der sich nirgends Wasser befand. Endlich hatte ein Soldat etwas gefunden und brachte es dem Könige in seinem Helm. Da dieser aber sah, daß seine Soldaten ebenso wie er vor Durst lechzten, sprach er: "Soll ich der einzige sein, der da trinkt?" und goß das Wasser auf die Erde. Alle voll Bewunderung über die Enthaltsamkeit des Königs, riefen: "Auf! führe uns fort! wir sind nicht ermattet, wir sind nicht durstig, führt uns ein solcher König!"

Enthaltsamkeit = self-restraint, *Zug* = march, *lechzen* = be parched, *ermatten* = be tired

5-6 Translate into English:

ANFANG UND ENDE

Manchmal, wenn ein Schritt draussen auf dem Flur erscholl, fuhr sie auf und horchte. Es ging an ihrer Thür vorüber und sie blieb mit sich allein.

Warum kehrte all ihr Sinnen immer wieder in die alte Zeit zu jenem Gartenweg zurück, wo die Sonnenblumen zwischen den Asten standen, und die kleinen Fruchtbäume die langen Schatten über die Gemüsebeete warfen? Die Sonne funkelte durch den hohen Zaun, und die Luft war ganz still von Vogel-sang. Morgen sollte sie den Tag fern von diesem stillen Revier sich neigen sehen.

auffahren = start up, *Gemüsebeet* = vegetable bed, *Zaun* = hedge, *Revier* = spot, *sich neigen* = wane

7 Translate into German: (a) You are wrong, yet I will pardon you, (b) My teacher went home at noon, (c) Begin at once, if you please, (d) He would be here if the weather were fine, (e) May I see the book that John is reading?

8 Conjugate, in the singular, the imperfect indicative active of *halten*, the pluperfect indicative passive of *weisen*, the imperfect subjunctive active of *wissen*, the imperfect subjunctive of *sollen*. Write the imperative of *helfen*.

9 Fill each blank in the following with the correct form of the definite article: Er ritt aus Stadt und durch Wald diesseits Berge in ruhige Land. Bald war er in Kloster wo er sicher war.

10 Decline, in both singular and plural, the German for *good father, this poor child*.

11 Translate into English: (a) Er war hier vor anderthalb Jahre, (b) Es ist mir nicht gelungen meinen Freund zu finden, (c) Wir werden die Reise zu Pferde machen, (d) Vergessen Sie es ja nicht, (e) Sein Sohn soll krank sein.

12 Write the principal parts of *legen, schlagen, leiden, handeln, lügen*.

13 Decline the relative pronoun *der* in both singular and plural, the interrogative pronoun *wer*.

14 Write and translate original German sentences of at least six words each, containing (a) the superlative of *stark*, (b) the comparative of *groß*, (c) the superlative of *brav*, (d) the comparative of *eitel*, (e) the positive of the adverb *lieber*.

15 Write from memory and translate 10 consecutive lines of one of the following: *Schwertlied, Sinnsprüche, Der Wirtin Töchterlein, O Strafsburg*.

University of the State of New York

High School Department

176TH EXAMINATION

GERMAN—Second Year

Monday, January 26, 1903—9.15 a. m. to 12.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

DIE VIERZEHN NOTHELFER

Er deutete auf die prächtigen Bilder und sagte geradaus wie immer, diese Tafeln seien so gut und pünktlich zu Ende gediehen, nicht durch die Langeweile des Kerkers, sondern einzig und allein durch die Beihilfe der reizenden Susanne. Sie nur habe des Ritters Wort vor den Nothelfern gerettet. Die hundert Goldgulden begehre er nicht für eine durch Gewaltthat erpresste Arbeit; für das, was er frei gethan, habe er bereits den höchsten Preis gewonnen, Susannens Liebe,—keine Macht könne ihre Herzen wieder auseinander reißen, das stehe jetzt so fest und fertig, wie sämtliche vierzehn Nothelfer.—*Riehl*

Tafel=panel, *begehren*=desire

3-4 Translate into English:

DER SCHWIEGERSOHN

Nach dem unterbrochenen Fest waren alle Beziehungen zwischen den beiden Familien abgebrochen worden. Marie war einige Tage ernstlich krank gewesen und nach ihrer Genesung von der Mutter in eine entfernte Stadt zu Verwandten gebracht worden. Sie sollte dort bleiben, bis Gras über den Skandal gewachsen war. Wenn die Kanzleirätin einem Glied der Eckart'schen Familie begegnete, so that sie, als ob sie es nicht kenne, und der Kanzleirat ging jedem Zusammentreffen mit dem Doktor und dessen Vater ängstlich aus dem Weg; er war sogar aus der Harmoniegesellschaft ausgetreten.

—*Baumbach*

5-6 Translate into English:

HERMANN UND DOROTHEA

Einen Krug verlangt' er von ihr, die Bürde zu teilen.
Laßt ihn, sprach sie; es trägt sich besser die gleichere Last so,
Und der Herr, der künftig befiehlt, er soll mir nicht dienen.
Seht mich so ernst nicht an, als wäre mein Schicksal bedenklich!
Dienen lerne beizeiten das Weib nach ihrer Bestimmung;

Denn durch Dienen allein gelangt sie endlich zum Herrschen,
Zu der verdienten Gewalt, die doch ihr im Hause gehöret.
Dienet die Schwester dem Bruder doch früh, sie dienet den
Eltern,

Und ihr Leben ist immer ein ewiges Gehen und Kommen,
Oder ein Heben und Tragen, Bereiten und Schaffen für andre.

— Goethe

7 Translate into German: (a) She said that she had been very ill, (b) I shall stay at home unless you go with me, (c) Instead of answering me the child began to cry, (d) We can fight no longer, (e) I was just on the point of writing to you.

8 Translate into German: (a) When I was young I read whenever I could obtain a book, (b) You are to blame for that, (c) I studied till I had a bad headache, (d) I thought that I heard him call, (e) Go away and do not return.

9 Conjugate, in the singular, the present indicative and the present subjunctive of *mögen*, the imperfect indicative active of *raten*, the imperfect subjunctive of *liegen*. Write the imperative active of *schelten*.

10 Write the principal parts of *schreiben*, *gelingen*, *nennen*, *graben*, *trügen*.

11 Write the synopsis of *geben* in the third person singular of the indicative and subjunctive active.

12 Translate into German: (a) to be afraid of, (b) to send for, (c) to laugh at, (d) to think of, (e) to wait for, (f) to ask after, (g) to speak of, (h) to warn against, (i) to beg for, (j) to become of.

13 Mention *five* adjectives that are followed by the dative. Write and translate original German sentences containing the adjectives mentioned.

14 Write and translate original German sentences containing *three* of the following: (a) a verb compounded with a prefix that may be either separable or inseparable, (b) an optative subjunctive, (c) an infinitive limiting a noun, (d) the gerundive (future passive participle), (e) a substantive adjective.

15 Write from memory and translate 10 consecutive lines of *one* of the following: *Die Hoffnung*, *Barbarossa*, *Scheiden*, *Die Grenadiere*.

University of the State of New York

High School Department

178TH EXAMINATION

GERMAN—Second Year

Monday, June 15, 1903—9.15 a. m. to 12.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

DIE REGENTRUDE

So begannen beide leise in die Hände zu klopfen, und als bald drängten sich die Nebelgebilde nach den Öffnungen und schwammen, eins nach dem andern, ins Freie hinaus. Nach kurzer Zeit sah Maren schon wieder den Brunnen vor sich und den grünen Boden mit den gelben und violetten Irisblüten. Dann wurden auch die Fensterhöhlen frei, und sie sah weithin über den Bäumen des Gartens die Wolken den ganzen Himmel überziehen. Allmählich verschwand die Sonne. Noch ein paar Augenblicke, und sie hörte es draussen wie einen Schauer durch die Blätter der Bäume und Gebüsche wehen, und dann rauschte es hernieder, mächtig und unablässig.—*Storm*

Trude=witch

3-4 Translate into English:

FRITZ AUF FERIE

Von diesem ersten Morgen an ergriff der kleine Gast unmerklich aber sicher Besitz von der ganzen Häuslichkeit, der Amtsrat mochte sich dagegen sträuben, soviel er wollte, er konnte dem Jungen nicht entgehen, so wenig er dem warmen Sommerwind draussen wehren konnte, durch alle Mauerritzen und Thürspalten zu dringen. Er sprach mit Fritz oft halbe Tage nicht, aber er bemerkte ihn überall! Er hörte seine frische Kinderstimme durchs Haus schallen, er sah ihn wie ein losgelassenes, junges Füllen durch den Garten traben, und er mußte zu seinem halb unwilligen Erstaunen bemerken, wie fast das ganze Haus nach und nach der Botmäfsigkeit des kleinen Kerls verfiel.—*Arnold*

sträuben=struggle, *Mauerritze*=gap in a wall, *Füllen*=colt, *Botmäfsigkeit*=dominion

5-6 Translate into English:

WILHELM TELL

Rudens—Ja, ich verberg' es nicht—in tiefer Seele
Schmerzt mich der Spott der Fremdlinge, die uns

Den Bauernadel schelten — Nicht ertrag' ich's,
Indes die edle Jugend rings umher
Sich Ehre sammelt unter Habsburgs Fahnen,
Auf meinem Erb' hier müßig still zu liegen,
Und bei gemeinem Tagewerk den Lenz
Des Lebens zu verlieren — Anderswo
Geschehen Thaten, eine Welt des Ruhms
Bewegt sich glänzend jenseits dieser Berge —
Mir rosten in der Halle Helm und Schild. — *Schiller*

7 Translate into German: (a) Please ask him whether he can do that, (b) I think of going home tomorrow or Saturday, (c) You will be obliged to translate the poem that you have copied, (d) That story had been told me by one of my friends, (e) Who was singing? It was I.

8 Translate into German: (a) After reading the newspaper, he studied his lesson, (b) Some years ago I met him at the university, (c) Had I served him faithfully he would help me now, (d) They arrived in good time because they started early, (e) I am certain of his success.

9 Conjugate, in the singular, the present indicative and the perfect subjunctive of *dürfen*, the present indicative active of *treten*, the present indicative passive of *nehmen*, the imperfect subjunctive active of *biegen*.

10 Translate into English: (a) Jener Mann bringt es nicht weit, (b) Er wird in Ruf kommen, (c) Müßiggang ist aller Laster Anfang, (d) Es ist mir alles eins, (e) Wem soll das gelten?

11 Write and translate original German sentences of at least six words each, using correctly the following words: *als, wenn, wann, allein, sondern*.

12 Write the synopsis of *thun* in the third person singular of the indicative and subjunctive active.

13 Mention (a) *three* cases in which the German uses the definite article where the English omits it, (b) *two* cases in which the German omits the indefinite article where the English uses it. Illustrate each case by a complete German sentence.

14 Give the principal parts of *ziehen, reißen, gedeihen, fressen, sinnen*.

15 Write from memory and translate 10 consecutive lines of one of the following: *Wunsch, Scheiden, Die Riesen und die Zwerge, Der Handschuh*.

University of the State of New York

High School Department

176TH EXAMINATION

GERMAN—Third Year

Monday, January 26, 1903—1.15 to 4.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

DIE JUNGFAU VON ORLEANS

Johanna—Und ich bin wirklich unter meinem Volk,
Und bin nicht mehr verachtet und verstossen?
Man flucht mir nicht, man sieht mich gütig an?
—Ja, jetzt erkenn' ich deutlich alles wieder!
Das ist mein König! Das sind Frankreichs Fahnen!
Doch meine Fahne seh' ich nicht.—Wo ist sie?
Nicht ohne meine Fahne darf ich kommen;
Von meinem Meister ward sie mir vertraut,
Vor seinem Thron muß ich sie niederlegen;
Ich darf sie zeigen, denn ich trug sie treu.—*Schiller*

3-4 Translate into English:

NATHAN DER WEISE

Nathan—So kam nun dieser Ring, von Sohn zu Sohn,
Auf einen Vater endlich von drei Söhnen,
Die alle drei ihm gleich gehorsam waren,
Die alle drei er folglich gleich zu lieben
Sich nicht entbrechen konnte. Nur von Zeit
Zu Zeit schien ihm bald der, bald dieser, bald
Der dritte,—so wie jeder sich mit ihm
Allein befand, und sein ergießend Herz
Die andern zwei nicht teilten,—würdiger
Des Ringes, den er denn auch einem jeden
Die fromme Schwachheit hatte, zu versprechen.—*Lessing*

5-6 Translate into English:

TORQUATO TASSO

Tasso—An euch nur dacht' ich, wenn ich sann und schrieb;
Euch zu gefallen war mein höchster Wunsch,
Euch zu ergötzen war mein letzter Zweck.
Wer nicht die Welt in seinen Freunden sieht,
Verdient nicht daß die Welt von ihm erfahre.
Hier ist mein Vaterland, hier ist der Kreis,
In dem sich meine Seele gern verweilt.

Hier horch' ich auf, hier acht' ich jeden Wink.
 Hier spricht Erfahrung, Wissenschaft, Geschmack;
 Ja, Welt und Nachwelt seh' ich vor mir stehn.—*Goethe*

7 Translate into German: When the Franco-German War broke out, the Germans were on friendly terms with one another. Without this unity they would not have succeeded in obtaining the victory. Since the Germans owed their victory in part to the Prussian command, they chose the Prussian king to be emperor of the Germans.

8 Translate into German: Once Bismarck wished to give a soldier the iron cross. Being in a good humor he said to the soldier, "Will you take a hundred dollars instead of the cross?" "How much is the cross worth?" asked the soldier. "About three dollars," replied Bismarck. "Good," said the soldier, "then I'll take the cross and ninety-seven dollars."

9 Translate into English: (a) Ich mache mir wenig aus ihm, (b) Der Kopf steht darauf, (c) Das Haus sieht seltsam aus, (d) Ich lasse mich darauf nicht ein, (e) Er verfährt immer redlich mit allen, (f) Sie hat schon sonst zu leben, (g) Man kann ihm nichts recht machen, (h) Er hat sich um mich nicht zu kümmern, (i) Kommst du endlich einmal? (j) Wie kann ich an ihn gelangen?

10 Write in German about 75 words on the life and works of *either* Heine *or* Richter.

11 Mention *five* adjectives that are generally followed by prepositions. Illustrate by writing and translating original German sentences.

12 Write in German about 75 words on *either* the story of the three rings from *Nathan der Weise*, *or* the death of Joan of Arc as given in *Die Jungfrau von Orleans*.

13 Distinguish in use *nun* and *jetzt*; *aber* and *sondern*. Write and translate original German sentences, using these words correctly.

14 State *three* ways in which derivative nouns are formed and give an example of each in an original German sentence, translating each sentence.

15 Write from memory and translate 10 consecutive lines of *one* of the following: *Der Fischer*, *Des Sängers Fluch*, *Der Sänger*, *Gebet während der Schlacht*.

University of the State of New York

High School Department

178TH EXAMINATION

GERMAN—Third Year

Monday, June 15, 1903—1.15 to 4.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

IPHIGENIE AUF TAURIS

Iphigenie—In Aulis harreten sie

Auf günst'gen Wind vergebens: denn Diane,
 Erzürnt auf ihren großen Führer, hielt
 Die Eilenden zurück und forderte
 Durch Kalchas Mund des Königs älteste Tochter.
 Sie lockten mit der Mutter mich ins Lager;
 Sie rissen mich vor den Altar und weihten
 Der Göttin dieses Haupt.—Sie war versöhnt:
 Sie wollte nicht mein Blut, und hüllte rettend
 In eine Wolke mich; in diesem Tempel
 Erkennt' ich mich zuerst vom Tode wieder.
 Ich bin es selbst, bin Iphigenie,
 Der Göttin Eigentum, die mit dir spricht.—*Goethe*

3-4 Translate into English:

FRÜHLINGSGLAUBE

Die linden Lüfte sind erwacht,
 Sie säuseln und weben Tag und Nacht,
 Sie schaffen an allen Enden.
 O frischer Duft, o neuer Klang!
 Nun, armes Herze, sei nicht bang!
 Nun muß sich alles, alles wenden.
 Die Welt wird schöner mit jedem Tag,
 Man weiß nicht, was noch werden mag,
 Das Blühen will nicht enden.
 Es blüht das fernste, tiefste Thal;
 Nun, armes Herz, vergifs der Qual!
 Nun muß sich alles, alles wenden.—*Uhland*

5-6 Translate into English:

DIE JOURNALISTEN

Bolz—Seine politischen Ansichten kümmern mich hier nicht.
 Aber was verlange ich von einem Deputierten? Daß er ein
 Mann ist; daß er ein warmes Herz hat und ein sicheres Urteil,

und ohne Schwanken und Umherfragen weiß, was gut und recht ist; und dann, daß er auch die Kraft hat zu thun, was er für recht erkennt, ohne Zaudern, ohne Bedenken.

Kleinmichel—Aber so ein Mann soll der Oberst auch sein.

Bolz—Möglich, daß er so ist, ich weiß es nicht; von Oldendorf aber weiß ich's. Ich habe ihm recht ins Herz hinein gesehen, bei einer Unannehmlichkeit, die mir widerfuhr.

—*Freitag*

7 Translate into German: The political humiliation of Germany by Napoleon 1 at the beginning of the nineteenth century awakened in all parts of the German nation, specially in Prussia, a feeling of deepest hatred toward the oppressor. Powerless as Germany then was, there was scarcely a prospect of shaking off the yoke.

8 Translate into German: "My dear sir," said a polite hotel keeper to a guest who was about to leave the hotel without having paid his bill, "recollect, if you lose your pocket-book on the way, that you did not take it out here."

9 Translate into English: (a) Er ist von sich selbst eingenommen, (b) Jetzt geht mir ein Licht auf, (c) Es hat nichts zu bedeuten, (d) Der Herr versteht sich darauf, (e) Er mißt andere nach sich ab, (f) Jeder ist sich selbst der Nächste, (g) Die Zeit ist verfallen, (h) Sie kommen eben recht, (i) Heraus mit der Sprache! (j) Wie steht's?

10 Write in German about 75 words on the life and works of Lessing *or* of Schiller.

11 Give, with meaning of each part, the derivation of *each* of the following: *Zeiger, denkbar, Missethat, Flügel, Undank*.

12 Mention *five* intransitive verbs that are always conjugated with *sein*; *five* intransitive verbs that are conjugated sometimes with *sein* and sometimes with *haben*.

13 Write in German a letter of about 75 words, inviting a friend to visit you and stating your plans for his (her) entertainment.

14 Mention *five* adjectives that are followed *either* by the genitive *or* by the accusative. Illustrate by writing and translating original German sentences.

15 Write from memory and translate the last 10 lines of *one* of the following: *Mignon, Der Schnitter Tod, Mein Vaterland, Belsazar*.

High School Department

176TH EXAMINATION

SPANISH—First Year

Tuesday, January 27, 1903—1.15 to 4.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

SWIFT Y SU CRIADO

Swift, el deán de San Patricio, estando á punto de montar á caballo, pidió sus botas. Su criado se las trajo. "¿Porqué no están limpias?" preguntó Swift. "Como V. iba á salir muy pronto y las ensuciaría otra vez," repuso el criado, "yo pensé que no valía la pena de limpiarlas."—Poco después el criado pidió á Swift la llave de la despensa. "¿Qué quieres hacer con ella?" "Almorzar," respondió el criado. "Como tendrás hambre de aquí á dos horas," repuso Swift, "no vale la pena de comer ahora."

limpio=clean, *ensuciar*=soil, *despensa*=pantry, *almorzar*=breakfast

3-4 Translate into English:

EL CANAL DE SUEZ

Llegamos á Puerto Said en un vapor de la línea Austrian Lloyd. El nombre de este puerto fué dado por el Bajá Said. La escena que se presenta pasando por el canal es de lo más interesante, y puede decirse la única en su especie. Allí, separadas sólo por una distancia de unas cincuenta varas, se ven juntas la civilización de hoy con las costumbres de ahora muchos siglos. En el canal uno ve los grandes esfuerzos de la civilización moderna, representados en los vapores que salen de los puertos de Europa, para anclar, después de pocas semanas de navegación, en los de Asia y Australia.

bajá=pasha

5-6 Translate into English:

LUCIO ANEO SÉNECA

La familia Anea, trasladada por su desgracia á Roma, produjo los tres escritores más eminentes de los malhadados tiem-

pos de Calígula, Claudio y Nerón. Lucio Aneo Séneca, el padre, pareció en Roma en un tiempo en que todavía existían los que habían oído á César, Craso y Cicerón, y sin embargo se hizo distinguir, y adquirió reputación por sus talentos en la oratoria. No quiere esto decir, que igualase á tan célebres oradores; mas se debe pensar que quien pudo interesar la atención de los que los habían oído, no podía menos de tener un mérito singular.

malhadado=unhappy

7 Translate into Spanish: (a) He told me about you, (b) She has five dollars more today than she had yesterday, (c) There is nobody in the back room, (d) Bring some flowers that are fresh, (e) Will you please follow me?

8 Conjugate the following in the plural: *pagar* in the future indicative active, *repetir* in the imperative active, *tenerse* in the imperfect indicative, *andar* in the preterit (past definite or aorist) indicative active.

9 Write the complete declension of the demonstrative pronouns.

10 Translate into English: (a) Me alegro mucho de ver á V., (b) Voy á salir, (c) Me gusta este libro, (d) El hombre tiene calor, (e) No hay nada que decir.

11 Write the plural of *casa*, *lunes*, *rubi*, *flor*, *nación*, *vez*, *ferrocarril*, *rey*, *sofá*, *joven*.

12 State the rule for the comparison of adjectives. Compare *four* adjectives that are exceptions to the rule.

13 Write in Spanish: nine, eleven, thirteen, sixteen, twenty-two, forty-five. Mention, with illustrations, *two* cases in which the Spanish uses cardinals where the English would use ordinals.

14 Write the first person, singular and plural, of the simple (uncompounded) tenses of the subjunctive active of *decir*. Write the present infinitive of *valga*, *vino*.

15 Write from memory and translate at least 10 consecutive lines of *one* of the following: *La ramilletera ciega*, *Las dos tumbas*, *Crepúsculo*, *¿Quién menoscaba mis bienes?*

University of the State of New York

High School Department

178TH EXAMINATION

SPANISH—First Year

Tuesday, June 16, 1903—1.15 to 4.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

LA PRIMAVERA

Todos los seres vivientes de la creación despiertan del largo sueño en que el frío del invierno los había sumergido. El aire es puro y vivificante en esta estación, y el cielo generalmente se ve despejado. Aunque son frecuentes los aguaceros que proveen á la tierra de la humedad y frescura que necesita para que sus producciones reciban nuevo vigor, las nubes no duran mucho tiempo; pronto el sol derrama de nuevo sus rayos brillantes sobre la tierra, y toda la naturaleza se alegra y engalana para celebrar á su Creador que la saca del letargo en que yacía, dándole nuevo movimiento y nueva vida.

estación = season, *despejar* = clear, *derramar* = shed, *engalanar* = adorn

3-4 Translate into English:

LA MAÑANA CUBANA

Más de una vez sentado sobre una alta peña de un monte que se levanta á unas cincuenta varas sobre la orilla de un río de mansas aguas, he admirado ese espectáculo que nos inspira adoración. A la hora del alba, la parte oriental del horizonte empieza á tomar un bello color de rosa que luego se cambia en brillante púrpura; y por fin se levanta el sol entre nubes de oro, con la majestad de un rey cuyos dominios son la inmensidad del espacio. El primer rayo de su luz refleja en la cumbre del monte: después en las aguas del mar y en las ondas del río.

peña = cliff, *vara* = yard, *manso* = quiet

5-6 Translate into English:

FRAY LUIS

A pocos años de haberse reconquistado Granada del poder de los moros nació en aquella hermosa ciudad un niño de buen

natural y gentil persona, pero de una familia pobre. Tuvo la desdicha de perder á su padre siendo todavía de muy corta edad y quedó al cuidado de su madre, cargada de años y tan necesitada que cuando le faltaba el sustento necesario, iba á la portería de un convento donde se le acudía con los cortos alimentos que se reparten á los pobres. Tenía el niño un alma tan noble y un corazón tan tierno que no podía ver una lástima. Ocasión hubo en que, viendo pasar á un pobre se quitó el pan de la boca para socorrerle.

acudir = assist, *lástima* = grievous sight

7 Translate into Spanish: (a) I see only three men that are friends of yours, (b) The prettiest flowers grow on the north side of the garden, (c) Do not speak of it again, (d) On finding it they both laughed, (e) Did that book interest you more than this one?

8 Conjugate the following in the singular: *temer* in the imperfect indicative active, *lavarse* in the future indicative; the following in the plural: *ir* in the future indicative, *pensar* in the present subjunctive active.

9 Write in Spanish the year, month, day, hour and minute of answering this question. [Do not use figures.]

10 Give the reason for the use of the accent-mark on *each* of the following words: *bonísimo*, *mío*, *fácilmente*, *sólo*, *cómo*.

11 Translate into English: (a) Le doy gracias. No hay de qué, (b) No vaya V. tan de prisa, (c) Digo que sí, es un hecho, (d) ¿Qué tiempo hace? Hace mucho frío, (e) ¿Qué noticia hay? Se habla de guerra.

12 Fill in the blanks in the following with the proper forms of the definite article: *hombres*, *agua*, *acciones*, *a* *padre*, *alta casa*, *mío*, *hambre*, *de* *rey*. Give the irregular comparison of *alto*, *bajo*.

13 Give *three* rules for the formation of the feminine of adjectives and illustrate each rule.

14 Mention the tense and mode and give the infinitive of *each* of the following verbs: *huyeron*, *cabré*, *sepa*, *he hecho*, *hemos*, *eran*.

15 Write from memory and translate at least 10 consecutive lines of *one* of the following: *La ramilletera ciega*, *El asno y el caballo*, *Sacudí*, *Las dos tumbas*.

Thursday, January 29, 1903—1.15 to 4.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

EL CAPITÁN VENENO

Los pocos grados y empleos que ha obtenido hasta ahora, le han costado prodigios de valor y no sé cuantas heridas; sin lo cual no habría sido propuesto para recompensa por sus jefes, siempre enemistados con él á causa de las amargas verdades que acostumbra á decirles. ¡Lo que nunca ha hecho ha sido pronunciarse! Desde que se acabó la guerra, se halla constantemente de reemplazo; pues, si bien he logrado, en mis épocas de favor político, proporcionarle tal ó cual colocación en oficinas militares, regimientos, etc., á las veinticuatro horas ha vuelto á ser enviado á su casa.—*Alarcón*

pronunciarse=take part in an insurrection, *de reemplazo*=on waiting orders

3-4 Translate into English:

DOÑA PERFECTA

Me parece que hoy picará el sol, Sr. Licurgo—dijo el caballero, desembarazándose un poco del abrigo en que se envolvía.—¡Qué triste camino! No se ve ni un solo árbol en todo lo que alcanza la vista. Aquí todo es al revés. La ironía no cesa. ¿Por qué, si no hay aquí álamos grandes ni chicos, se ha de llamar esto los Alamillos?

El tío Licurgo no contestó á la pregunta, porque con toda su alma atendía á ciertos lejanos ruidos que de improviso se oyeron, y con ademán intranquilo detuvo su cabalgadura, mientras exploraba el camino y los cerros lejanos con sombría mirada.—*Pérez Galdós*

álamo=poplar, *ademán*=manner, *cabalgadura*=pack animal

5-6 Translate into English:

JOSÉ

El tiempo fué de mal en peor: algunos días serenos llegaban que les hacían concebir esperanzas de mejoría; pero al instante

se cambiaba y volvía á mostrarse con cariz feo y huraño. Cierta especie propalada por el lugar les infundió aún más recelo: se decía que un muchacho había visto varias noches salir de la ribera tres de las lanchas, tripuladas por hombres vestidos de blanco, y que al cabo de dos ó tres horas las veía entrar de nuevo solas. No es fácil representarse el terror que esta noticia produjo en el pueblo, sobre todo entre las mujeres: los hombres también estaban tristes y medrosos, pero lo disimulaban.—*Valdés*

cariz=aspect, *huraño*=grim, *especie*=incident, *recelo*=fear, *lancha*=boat

7 Translate into Spanish: (a) We shall inform you of all that may happen, (b) Every time the Spanish force advanced, the enemy retreated, (c) The girls are taking a walk, (d) No one else can do it so well, (e) Hasten.

8 Translate into Spanish: (a) I did not know that you knew everybody there, (b) Whatever you say they won't believe you, (c) He is only a poor man, (d) The clock struck five a few minutes ago.

9 Write the principal parts (primitive tenses) of *poder*, *partir*, *beber*, *tocar*, *mirar*.

10 Explain in full the position of the personal pronoun used as (a) direct object, (b) indirect object.

11 Write the unabbreviated form and the English equivalent of five of the following: *d v/a.*, *d cta.*, *cte.*, *cta.*, *lbs.*, *cta. d/v.*, *en°*, *fha.*

12 Translate into English: (a) Es lástima, (b) Hace luna, (c) Que quiera ó no, lo haré, (d) La casa está contra el norte, (e) Como soy que es verdad, (f) Quedo á V. muy agradecido, (g) Va de peor en peor, (h) Llegaré á tiempo, (i) No vale absolutamente nada, (j) A la una volvieron á ponerse en marcha.

13 Write the masculine of *mujer*, *hija*, *reina*, *marquesa*, *vaca*, *actriz*, *princesa*, *emperatriz*, *joven*, *leona*.

14 From what infinitive is each of the following and where is the form found: *doy*, *traiga*, *estuve*, *quisiera*, *plegue*?

15 Write from memory and translate at least 10 consecutive lines of one of the following: *El Español*, *Firmeza*, *Hoy como ayer*, *mañana como hoy*, *Imagen espantosa de la muerte*.

University of the State of New York

High School Department

178TH EXAMINATION

SPANISH—Second Year

Thursday, June 18, 1903—1.15 to 4.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

LA CORTE DE CARLOS 4

Las lámparas y candelillas habían sido puestas con sumo arte, también en forma de guirnalda y festones de diversos colores, y su vivo resplandor daba fantástico aspecto á la casa toda. El primer salón, de cuyas paredes las modas nuevas no habían desterrado aún aquellos hermosos tapices que pasaban de generación á generación, no perdía con tan espléndidas luminarias su grave aspecto; antes bien, las luces, dando reflejos extraños á las armaduras de cuerpo entero que ocupaban los ángulos, y lanza en mano, como centinelas de acero, parecían imprimir el movimiento y el calor de la vida á los imaginarios cuerpos que se suponían dentro de ellas. — *Pérez Galdós*

guirnalda = wreath, *armadura* = armor

3-4 Translate into English:

EL CAUTIVO

Estando en estas y otras muchas razones llegó un moro corriendo, y dijo á grandes voces que por las bardas ó paredes del jardín habían saltado cuatro turcos, y andaban cogiendo la fruta aunque no estaba madura. Sobresaltóse el viejo y lo mismo hizo Zoraida, porque es común y casi natural el miedo que los moros á los turcos tienen, especialmente á los soldados, los cuales son tan insolentes, y tienen tanto imperio sobre los moros que á ellos están sujetos, que los tratan peor que si fuesen esclavos suyos. Digo pues, que dijo su padre á Zoraida: Hija, retírate á la casa. — *Cervantes*

sobresaltar = frighten

5-6 Translate into English:

LA FAMILIA DE ALVAREDA

Desde el malhadado día en que Pedro perdió á su hijo, se había encerrado en su casa con su dolor. El cura y algunos

amigos iban de cuando en cuando á acompañarlo, no para consolarlo, era esto imposible, pero para hablar con él de su pena, haciendo como los que aligeran los bajeles de las amargas aguas de la mar para impedir que se hundan. Habían procurado que se volviese á tratar con la familia de Perico; mas esto había sido un imposible.

—¡ No! respondía Pedro en esas ocasiones; le he perdonado ante Dios y los hombres; mi pobre hijo lo hizo antes de morir.

—*Fernán Caballero*

aligerar = lighten, *bajel* = ship

7 Translate into Spanish: (a) The cause of this accident must be found immediately, (b) Night came on before they reached a desirable inn, (c) Were you to write to him occasionally, it would benefit him more than you can imagine, (d) The captain has just left, (e) The date of the letter is April first.

8 Translate into Spanish: (a) He is more determined than ever, (b) The child asked for it so earnestly that no one could have refused her, (c) It is doubtful whether he knows it, (d) After the sun has set and the moon has risen the whole town comes out to enjoy the cool air.

9 Write the principal parts (primitive tenses) of *oler*, *traducir*, *traer*, *elegir*, *rogar*.

10 Assume that you are a merchant in Santiago de Cuba. Write in Spanish an order for goods to some firm in New York. Give specific directions about quality, packing, shipping, route, terms and method of payment.

11 Mention the different uses of the personal pronoun *le*. Show how and under what circumstances *le* changes its form.

12 Translate into Spanish: (a) I have not had them, (b) I have never had them, (c) I had only three, (d) I neither have them nor have I had them, (e) I have neither his nor yours.

13 Mention *seven* adjectives that omit the final *o* before their nouns; *three* adjectives that omit the final syllable before their nouns.

14 Write the first person plural of the simple (uncompounded) tenses of the indicative and subjunctive of *leerse*.

15 Write from memory and translate at least 10 consecutive lines of *one* of the following: *El Español*, *Imagen espantosa de la muerte*, *Hymne de Riego*, *¡Qué hermoso es ver el día!*

University of the State of New York

High School Department

176TH EXAMINATION

SPANISH—Third Year

Tuesday, January 27, 1903—1.15 to 4.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

DON QUIJOTE

No lo niego, replicó Don Quijote, pero acomódate tú donde quisieres, que los de mi profesión mejor parecen velando que durmiendo; pero con todo eso sería bien, Sancho, que me vuelvas á curar esta oreja, que me va doliendo más de lo que es menester. Hizo Sancho lo que se le mandaba; y viendo uno de los cabreros la herida, le dijo que no tuviese pena, que él pondría remedio con que fácilmente se sanase; y tomando algunas hojas de romero, de mucho que por allí había, las mascó y las mezcló con un poco de sal, y aplicándoselas á la oreja se las vendó muy bien, asegurándole que no había menester otra medicina, y así fué la verdad.—*Cervantes*

romero=rosemary, *vendar*=bind

3-4 Translate into English:

PARTIR Á TIEMPO

Ana—Si lo eres, es porque quieres, porque te entregas sin defensa al peligro, en lugar de huir de él. Yo no soy más que una mujer, y harto débil sin duda, pero si algún día, por mi desgracia, tuviese que luchar con sentimientos semejantes á los tuyos, lejos de ceder á ellos cobardemente, moriría tal vez, pero triunfaría. ¿Tendrás tú menos valor? Tendré que darte yo lecciones de valor y de energía? Vamos, Carlos, amigo mío, créeme; no hay sentimiento, por profundo que sea, que la razón no pueda subyugar, ni desgracia tan grande que no pueda soportar y vencer nuestro corazón! Yo te ofrezco mi apoyo, y, si eres lo que creo, tú seguirás mis consejos.—*Larra*

5-6 Translate into English:

LOS OJOS VERDES

Tú no conoces aquel sitio. Mira, la fuente brota escondida en el seno de una peña, y cae resbalándose gota á gota por

entre las verdes y flotantes hojas de las plantas que crecen al borde de su cuna. Aquellas gotas que al desprenderse brillan como puntos de oro y suenan como las notas de un instrumento, se reúnen entre los céspedes, y susurrando, susurrando como un ruido semejante al de las abejas que zumban en torno de las flores, se alejan por entre las arenas, y forman un cauce, y luchan con los obstáculos que se oponen á su camino, y se repliegan sobre sí mismas.—*Bécquer*

brotar=gush forth, *césped*=turf, *cauce*=bed

7 Translate into Spanish: Sublime is the destiny of genius. Genius gives us pleasure with its creations; it brings about, by proclaiming its own ideas, the progress of its generation; finally, in after times, it becomes a monument of the age to which it belonged.

8 Translate into Spanish: He who has not visited Madrid and is not acquainted with the turbulent and merry Spanish character, can not imagine what a carnival is in the capital of Spain.

9 Define and illustrate impersonal verb, reflexive verb, defective verb. Conjugate, in the singular, the present indicative active of *coger*, the present subjunctive active of *distinguir*.

10 Mention, with meaning, a Spanish noun derived from *each* of the following: *bueno*, *vengar*, *lavar*, *pesado*, *altivo*. Give the derivation of *each* of the following: *librería*, *manecilla*, *hijuelo*, *fusilazo*, *viejezuelo*.

11 Write in Spanish about 75 words on the life and works of *one* of the following: Lope de Vega, Zorrilla, Quevedo.

12 Mention *two* uses of the subjunctive in independent sentences; *three* uses of the subjunctive in dependent clauses. Illustrate each use by an original Spanish sentence.

13 Write and translate Spanish idioms containing *five* of the following verbs: *hacer*, *volver*, *echar*, *ir*, *acabar*, *querer*, *deber*, *ver*.

14 Give the changes that take place in conjugation in the stems of the following verbs: *pensar*, *sentir*, *dormir*, *pedir*, *huir*.

15 Write from memory and translate at least 10 consecutive lines of *one* of the following: *Cupido*, *A la patria*, *El sueño*, *Alhambra*.

University of the State of New York

High School Department

178TH EXAMINATION

SPANISH—Third Year

Tuesday, June 16, 1903—1.15 to 4.15 p. m., only

Answer questions 7 and 8 and eight of the others but no more. If more than eight of the others are answered only the first eight answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-2 Translate into English:

DON QUIJOTE

Es un bálsamo, respondió Don Quijote, de quien tengo la receta en la memoria, con el cual no hay que tener temor á la muerte: y así cuando yo le haga y te le dé, no tienes más que hacer sino cuando vieres que en alguna batalla me han partido por medio del cuerpo, como muchas veces suele acontecer, bonitamente la parte del cuerpo, que hubiere caído en el suelo y con mucha sutileza antes que la sangre se hiele, la pondrás sobre la otra mitad que quedare en la silla, advirtiéndole de encajallo igualmente y al justo: luego me darás á beber solos dos tragos del bálsamo que he dicho, y verásme quedar más sano que una manzana.—*Cervantes*

encajallo=fitting

3-4 Translate into English:

LA INDEPENDENCIA

Amparo—Es el caso que convencida yo de mi inutilidad para dirigir la labranza, y sin medios para hacer productiva mi pertenencia, he resuelto enajenarlas. Si las saco á pública subasta, escribanos y jueces y agrimensores devorarán la mitad de su escaso valor. Acaso podrá convenir á V. la adquisición de esas tierras por lindar con las suyas; le tengo por hombre de honor, y si quiere comprármelas . . .

Don Agustín—Veremos esas tierras . . . Aunque desde ahora opino que será mejor que V. las conserve.—*Herreros*

lindar=be contiguous

5-6 Translate into English:

GRANADA

Ni volvió la cabeza desdeñosa,
Ni le otorgó siquiera una mirada;
Abú Abdilá, imitando á su orgullosa
Madre, no contestó tampoco nada.

Abú-l-Kazín entonces, en sombrío
 Silencio y con feroz torvo semblante,
 La estancia registró con vigilante
 Y prolija atención. Es deber mío,
 Dijo al fin, dirigiendo á la Sultana
 Una mirada donde el odio brilla,
 Y añadió: Nuestro Rey llega mañana
 Vencedor de las armas de Castilla.—*Zorrilla*
otorgar=condescend

7 Translate into Spanish: Floran's father obtained for him a commission in one of the best known infantry regiments of the army. If the war had continued his profession would have been that of arms. However the peace of 1815 destroyed all hope of a military career and Floran turned to his true vocation, literature.

8 Translate into Spanish: Why do brave men prefer an honorable death to a life of obscurity? Because they owe one to nature and the other to their own valor; life is a gift that is bestowed even on cowards, but a glorious death is the lot only of the brave.

9 Write the ending of the third person plural of each of the simple (uncompounded) tenses of the indicative and subjunctive active of regular verbs.

10 Form Spanish words containing the following suffixes: *-cito, -illo, -ón, -ote, -azo*. Give in each case the meaning of the stem word and show how its meaning is modified by the suffix.

11 Write in Spanish about 75 words on the life and works of *one* of the following: Calderón, Góngora y Argote, Fernán Caballero.

12 Distinguish in meaning (a) *el cura* and *la cura*, (b) *conocer* and *saber*. Mention *three* uses of *que* and write and translate an original Spanish sentence illustrating each use mentioned.

13 Mention and illustrate the difference in the use of the cardinals and ordinals in Spanish and English.

14 Give the regular form of *each* of the following past participles and mention the infinitive of each: *concluso, convicto, converso, fijo, nato*.

15 Write from memory and translate at least 10 consecutive lines of *one* of the following: *A la esperanza, Los defensores de la patria, Cupido, El sueño*.

High School Department

176TH EXAMINATION

GREEK—First Year

Thursday, January 29, 1903—9.15 a. m. to 12.15 p. m., only

Answer question 15 and nine of the others but no more. If more than nine of the others are answered only the first nine answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define and illustrate *each* of the following: antepenult, improper diphthong, temporal augment, reduplication. Mention the labial mutes.

2 Rewrite the following sentence with proper accents, giving the rule for the accent in each case: ἀγαθος οὗτος ἐστι. Write the uncontracted form of *each* of the following: ἐδήλουν, ποιῶμαι, τιμῶτε, φιλεῖ.

3 Decline, in singular and plural, σατράπης, γέφυρα, ἄρμα, ὄρνις, ἀνὴρ.

4 Decline μέλας in the singular, all genders; λύσας in the plural, all genders; τις in the singular and plural, all genders.

5 Decline εἰς ποταμός in the singular; ἀξιος βασιλεύς in the plural; τοῦτο τὸ ἄστυ in both singular and plural.

6 Compare αἰσχυρός, ἀληθής, νέος, πολύς. Form an adverb from *each* of the following, giving the rule for the formation of each: μείζων, ἡδιστος.

7 Conjugate ἔχω in the imperfect indicative active; λαμβάνω in the present optative active; ἴστημι in the present subjunctive middle.

8 Write the principal parts of ἵημι, πάσχω, πράττω, αἰρέω, ἀλίσκομαι.

9 Translate into Greek: (a) There was no battle on that night, (b) A messenger will come from the king, (c) Let us remain three days in the city, (d) The soldiers were unwilling to obey their general, (e) March to the river and burn the bridge.

10 Translate into English:

Ὁ Κλέαρχος ἤρετο τὸν βασιλέως ἄγγελον, πόση τις εἴη ἡ χώρα ἢ ἐν μέσῳ τοῦ Τίγρητος καὶ τῆς διώρυχος. ὁ δὲ ἐλέξεν ὅτι πολλή ἐστι καὶ κῶμαι ἐνεῖσι καὶ πόλεις μεγάλαι.

πόσος τις=about how large, ἐν μέσῳ=between, Τίγρης=Tigris river, διώρυξ=canal

11 Give the reason for the case of βασιλέως, χώρα, πολλή; for the mode of αἶψα, ἔστι.

12 Write the first form of λείπω in all modes (including participle) of the first aorist passive. Write all the middle participles of λύω.

13 Translate into English:

a Οἶεται τὸν τῆς χώρας ἄρχοντα πέμψειν ἡγεμόνας.

b Ἐὰν μάχεσθαι δέη, πολλοὶ ἱππεῖς εἰσιν ἡμῖν σύμμαχοι.

c Κλέαρχος ἔφη τὸν ποταμὸν εἶναι ἄπορον.

d Ἐπεὶ εἶδον τὴν θάλατταν, κραυγὴ πολλὴ ἐγένετο.

14 Write sentences illustrating *three* of the following: dative of degree of difference, predicate genitive, accusative of extent of space, final clause of purpose, past general condition.

15 Translate into Greek: (*a*) All the friends of Cyrus fought bravely for him, (*b*) We must guard the village, since the horse-men are near, (*c*) May our soldiers be brave in this war, (*d*) He said that he would collect a large army for Cyrus.

High School Department

178TH EXAMINATION

GREEK—First Year

Thursday, June 18, 1903—9.15 a. m. to 12.15 p. m., only

Answer question 15 and nine of the others but no more. If more than nine of the others are answered only the first nine answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Give the rule for the use of the acute, the grave and the circumflex accent, illustrating each. Define and illustrate syllabic augment, elision.

2 Write the genitive and dative, singular and plural, of *ἄνθρωπος, φίλας, σκηπή, τέχος, βούς*.

3 Decline, in singular and plural, *ὄνομα, χωρίον, πολίτης, πατήρ, τριήρης*.

4 Decline *ἦδύς* in singular and plural, all genders; *ἐγώ* in the singular; *λύων* in the plural, all genders.

5 Compare *ταχύς, σοφός, κακός, χαρίεις*. Form an adverb from each of the following, giving the rule for the formation of each: *ἀληθής, ἡδίων*.

6 Conjugate *ἔρχομαι* in the second aorist optative; *τίθημι* in the present subjunctive middle; *ἄγω* in the aorist indicative passive.

7 Write the first form of *στέλλω* in all modes, including participle, of the aorist active. Write all the middle infinitives of *ποιέω*.

8 Write the principal parts of *ἔχω, ἵστημι, λείπω, βάλλω, φαίνω*.

9 Translate into Greek: (a) Cyrus was sent for by his father, (b) He received many gifts from his friends, (c) He promises to follow Cyrus, (d) His soldiers were better than many barbarians, (e) The king is coming with a large army.

10 Translate into English:

Οἱ δὲ στρατηγοὶ καὶ οἱ λοχαγοὶ ἤκοντες παρὰ τοῦ Ἀριστάρχου ἀπήγγελλον ὅτι νῦν μὲν ἀπείναι αὐτοὺς κελεύει, τῆς δαίλης δὲ ἤκειν. ἔνθα καὶ δῆλη μᾶλλον ἐδόκει ἢ ἐπιβουλὴ.

Ἀριστάρχος=Aristarchus, δαίλη=afternoon, ἐπιβουλὴ=plot

11 Give the reason for the case of *δαίλης, δῆλη*. From what verb is each of the following and where is the form found: *ἀπήγγελλον, ἀπείναι, ἤκειν*?

12 Give the verb stem (theme) of each of *three* of the following verbs and show how the present stem is formed from the verb stem: πράττω, φεύγω, λαμβάνω, γινώσκω, τίθημι.

13 Translate into English:

a Εἰ οὗτος ὁ ἀνὴρ τι ἔχει λέγειν, λεγέτω.

b Δεῖ ἡμᾶς πορεύεσθαι, οὐ γάρ ἐστι ἡμῖν τὰ ἐπιτήδεια.

c Ἐφῆα αὐτοὺς δυνήσασθαι ἀποπλεῖν οἴκαδε εὐθὺς.

d Ἐν τούτῳ τῷ πεδίῳ ἦσαν πολλαὶ πόλεις πλήρεις πολλῶν ἀγαθῶν.

14 State, with reason, the case that should be used in translating into Greek each italicized word in the following:

a The island is not far distant from the *mainland*.

b He told *them* what had happened.

c He ran a swift *race*.

d He is like his *brother*.

e They took supplies for three *months*.

15 Translate into Greek: (*a*) The general ordered the army to march as swiftly as possible, (*b*) The cavalry pursued the enemy and killed many of them, (*c*) If they take the city, we shall not be able to remain, (*d*) I desire to help him, for he is my friend.

XENOPHON'S ANABASIS

Tuesday, January 27, 1903—1.15 to 4.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a MENON'S TROOPS CROSS THE EUPHRATES

- 1 Ἀκούσαντες ταῦτα ἐπείθοντο καὶ διέβησαν πρὶν τοὺς ἄλλους ἀποκρίνα-
 2 σθαι. Κῦρος δ' ἐπεὶ ἤσθετο διαβεβηκότας, ἤσθη τε καὶ τῷ στρατεύματι
 3 πέμψας Γλοῦν εἶπεν· Ἐγὼ μὲν, ὦ ἄνδρες, ἤδη ὑμᾶς ἐπαινώ· ὅπως δὲ καὶ
 4 ὑμεῖς ἐμὲ ἐπαινέσετε ἐμοὶ μελήσει, ἢ μηκέτι με Κῦρον νομίζετε. οἱ μὲν
 5 δὴ στρατιώται ἐν ἐλπίσι μεγάλαις ὄντες ἠύχοντο αὐτὸν εὐτυχεῖν, Μένωνι
 6 δὲ καὶ δῶρα ἐλέγετο πέμπειν μεγαλοπρεπῶς. ταῦτα δὲ ποιήσας διέβαινε·
 7 συνείπετο δὲ καὶ τὸ ἄλλο στράτευμα αὐτῷ ἅπαν.—1, 4

b TISSAPHERNES PROFFERS FRIENDSHIP FOR THE GREEKS

- 1 Ἀλλὰ τί δὴ ὑμᾶς ἐξὸν ἀπολέσαι οὐκ ἐπὶ τοῦτο ἤλθομεν; εὖ ἴσθι ὅτι ὁ
 2 ἐμὸς ἔρωσ τοῦτου αἴτιος τὸ τοῖς Ἕλλησιν ἐμὲ πιστὸν γενέσθαι, καὶ ᾧ Κῦρος
 3 ἀνέβη ξενικῇ διὰ μισθοδοσίας πιστεύων τούτῳ ἐμὲ καταβῆναι δι' εὐεργεσίαν
 4 ἰσχυρόν. ὅσα δ' ἐμοὶ χρήσιμοι ὑμεῖς ἔστε τὰ μὲν καὶ σὺ εἶπας, τὸ δὲ
 5 μέγιστον ἐγὼ οἶδα· τὴν μὲν γὰρ ἐπὶ τῇ κεφαλῇ τιάραν βασιλεῖ μόνῳ
 6 ἔξεστιν ὀρθὴν ἔχειν, τὴν δ' ἐπὶ τῇ καρδίᾳ ἴσως ἂν ὑμῶν παρόντων καὶ
 7 ἑτερος εὐπετῶς ἔχει.—2, 5

c THE BARBARIANS HARASS THE GREEKS

- 1 Πάλιν δὲ ὅποτε ἀπίοιεν πρὸς τὸ ἄλλο στράτευμα ταῦτ' ἐπασχον, καὶ
 2 ἐπὶ τοῦ δευτέρου γηλόφου ταῦτ' ἐγίγνετο, ὥστε ἀπὸ τοῦ τρίτου γηλόφου
 3 ἔδοξεν αὐτοῖς μὴ κινεῖν τοὺς στρατιώτας πρὶν ἀπὸ τῆς δεξιᾶς πλευρᾶς τοῦ
 4 πλαισίου ἀνήγαγον πελταστὰς πρὸς τὸ ὄρος. ἐπεὶ δ' οὗτοι ἐγένοντο ὑπὲρ
 5 τῶν ἐπομένων πολεμίων, οὐκέτι ἐπετίθεντο οἱ πολέμοι τοῖς καταβαίνουσι,
 6 δεδοικότες μὴ ἀποτμηθῆναι καὶ ἀμφοτέρωθεν αὐτῶν γένοιτο οἱ πολέμοι.

6 Translate into Greek:

—3, 4

a The Greeks did not know that Tissaphernes was not faithful to them.

b They feared lest the barbarians who were in the mountains should attack the flanks.

c Let us cross the river in order that Cyrus may praise us.

7 Give the reason for the case of *Κῦρον* (*a*, 4), *αὐτῷ* (*a*, 7), *τούτου* (*b*, 2), *πιστόν* (*b*, 2), *ᾤ* (*b*, 2), *δοῦ* (*b*, 4), *αὐτῶν* (*c*, 6); for the mode of *ἔχα* (*b*, 7), *ἀπίοιεν* (*c*, 1), *γένοιοντο* (*c*, 6).

8 Give the syntax of *διαβεβηκότας* (*a*, 2), *εὐτυχῆσαι* (*a*, 5), *ἔξον* (*b*, 1), *παρόντων* (*b*, 6), *κινεῖν* (*c*, 3). Classify the following participles: *ἀκούσαντες* (*a*, 1), *πέμψας* (*a*, 3), *δεδοκότες* (*c*, 6). Compare *αἷτιος* (*b*, 2), *ισχυρόν* (*b*, 4).

9 From what verb is each of the following and where is the form found: *διέβησαν* (*a*, 1), *ἀπαλέσαι* (*b*, 1), *ἀπίοιεν* (*c*, 1), *ἐπετίθεντο* (*c*, 5), *ἀποτμηθεύσαν* (*c*, 6)?

10 Conjugate *ῥσθετο* (*a*, 2), *ἀνήγαγον* (*c*, 4), in the voice, mode and tense here found. Write the first form of each mode, including participle, of *οἶδα* (*b*, 5) in the voice and tense here found. Decline in the singular *ἐλπίσι* (*a*, 5).

11 Write the principal parts of *ἀκούσαντες* (*a*, 1), *ἐπείθοντο* (*a*, 1), *πέμψας* (*a*, 3), *ἔπαυνῷ* (*a*, 3), *ἔγένοντο* (*c*, 4).

12 Give the force of *ἤδη* (*a*, 3), *δὴ* (*b*, 1), *δὲ* (*b*, 4); the force of the voice and tense of *ἐπείθοντο* (*a*, 1).

13 State the correlative of *οἱ μὲν στρατιῶται* (*a*, 4-5). Explain the difference in use between *πρὶν* with the infinitive and *πρὶν* with a finite mode. Write in indirect discourse *ὅπως . . . μελήσει* (*a*, 3-4).

14 Give the composition of each of the following words and the meaning of each part: *μεγαλοπρεπῶς* (*a*, 6), *μισθοδοσίας* (*b*, 3), *γηλόφου* (*c*, 2). Show how the meaning of *ξενικῷ* (*b*, 3) is derived. Describe the *πλασιόν* (*c*, 4).

15 Translate into English [This must be taken by those who desire credit for the fourth book]:

THE SOLDIERS SUFFER FROM COLD

Καὶ Ξενοφῶν μὲν καὶ οἱ σὺν αὐτῷ εἰπόντες τοῖς ἀσθενοῦσιν ὅτι τῇ ὕστεραίᾳ ἤξουσιν τινες ἐπ' αὐτοὺς, πορευόμενοι πρὶν τέτταρα στάδια διελθεῖν ἐντυγχάνουσιν ἐν τῇ ὁδῷ ἀναπαυομένοις ἐπὶ τῆς χιόνος τοῖς στρατιώταις ἐγκεκαλυμένοις, καὶ οὐδὲ φυλακὴ οὐδεμία καθειστήκει· καὶ ἀνίστασαν αὐτοὺς. οἱ δ' ἔλεγον ὅτι οἱ ἔμπροσθεν οὐχ ὑποχωροῦεν. ὃ δὲ παρὶων καὶ παραπέμπων τῶν πελταστῶν τοὺς ἰσχυροτάτους ἐκέλευε σκέψασθαι τί εἴη τὸ κωλύον. οἱ δὲ ἀπήγγελλον ὅτι ὅλον οὕτως ἀναπαύοιτο τὸ στράτευμα. ἐνταῦθα καὶ οἱ περὶ Ξενοφῶντα ἠλίσθησαν αὐτοῦ ἀνευ πυρὸς καὶ ἀδειπνοί, φυλακὰς οἷας ἐδύναντο καταστησάμενοι. — 4, 5

University of the State of New York
High School Department

177TH EXAMINATION

XENOPHON'S ANABASIS

Thursday, March 26, 1903—9.15 a. m. to 12.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a

CYRUS ACTS AS PEACEMAKER

- 1 Κλέαρχε καὶ Πρόξενε καὶ οἱ ἄλλοι οἱ παρόντες Ἕλληνες, οὐκ ἴστε ὃ τι
2 ποιείτε. εἰ γάρ τινα ἀλλήλοις μάχην συνάψετε, νομίζετε ἐν τῇδε τῇ ἡμέρᾳ
3 ἐμὲ τε κατακεκόφισθαι καὶ ὑμᾶς οὐ πολὺ ἐμοῦ ὕστερον· κακῶς γὰρ τῶν
4 ἡμετέρων ἐχόντων πάντες οὗτοι οὓς ὁρᾶτε βάρβαροι πολεμιώτεροι ἡμῖν
5 ἴσονται τῶν παρὰ βασιλεῖ ὄντων. ἀκούσας ταῦτα ὁ Κλέαρχος ἐν ἑαυτῷ
6 ἐγένετο· καὶ παυσάμενοι ἀμφότεροι κατὰ χώραν ἔθεντο τὰ ὄπλα.—1, 5

b

THE GREEKS LEARN OF THE DEATH OF CYRUS

- 1 Οὗτοι ἔλεγον ὅτι Κύρος μὲν τέθνηκεν, Ἀριαῖος δὲ πεφευγὼς ἐν τῷ
2 σταθμῷ εἶη μετὰ τῶν ἄλλων βαρβάρων ὅθεν τῇ προτεραίᾳ ὤρμητο, καὶ
3 λέγοι ὅτι ταύτην μὲν τὴν ἡμέραν περιμένειεν αὐτούς, εἰ μέλλοιεν ἔλκειν, τῇ
4 δὲ ἄλλῃ ἀπίναι φαίη ἐπὶ Ἰωνίας, ὅθεν περ ἦλθε. ταῦτα ἀκούσαντες οἱ
5 στρατηγοὶ καὶ οἱ ἄλλοι Ἕλληνες πυνθανόμενοι βαρέως ἔφερον. Κλέαρχος
6 δὲ τάδε εἶπεν· Ἄλλ' ὥφελε μὲν Κύρος ζῆν· ἐπεὶ δὲ τετελεύτηκεν, ἀπαγ-
7 γέλlete Ἀριαίῳ ὅτι ἡμεῖς νικῶμεν τε βασιλείᾳ καὶ ὡς ὁρᾶτε οὐδεὶς ἔτι ἡμῖν
8 μάχεται, καὶ εἰ μὴ ὑμεῖς ἦλθετε, ἐπορευόμεθα ἂν ἐπὶ βασιλείᾳ.—2, 1

c

CHRISOPHUS SECONDS THE PROPOSALS OF XENOPHON

- 1 Νῦν δὲ καὶ ἐπαινώ σε ἐφ' οἷς λέγεις τε καὶ πράττεις καὶ βουλοίμην ἂν
2 ὅτι πλείστους εἶναι τοιούτους· κοινὸν γὰρ ἂν εἶη τὸ ἀγαθόν. Καὶ νῦν,
3 ἔφη, μὴ μέλλωμεν, ὦ ἄνδρες, ἀλλ' ἀπελθόντες ἤδη αἰρεῖσθε οἱ δεόμενοι
4 ἄρχοντας, καὶ ἐλόμενοι ἦκετε εἰς τὸ μέσον τοῦ στρατοπέδου καὶ τοὺς
5 αἰρεθέντας ἀγετε· ἔπειτ' ἐκεῖ συγκαλοῦμεν τοὺς ἄλλους στρατιώτας.
6 Παρόστω δ' ἡμῖν, ἔφη, καὶ Τολμίδης ὁ κῆρυξ. καὶ ἅμα ταῦτ' εἰπὼν
7 ἀνέστη, ὡς μὴ μέλλοιτο ἀλλὰ περαίνονται τὰ δέοντα.—3, 1

6 Translate into Greek:

a Let us choose generals to lead us through the country of the king.

b The barbarians who were fighting for Cyrus, fled when they heard of his death.

c Cyrus said to the Greeks, "If you wish to accomplish anything, you must not be hostile to one another."

7 Give the reason for the case of ἀλλήλοις (a, 2), ὑμᾶς (a, 3), ἐμοῦ (a, 3), ἡμῖν (a, 4), προτεραίᾳ (b, 2), ἡμέραν (b, 3), Ἀρμαίᾳ (b, 7), ἡμῖν (c, 6); for the mode of ἀπύναι (b, 4), ζῆν (b, 6).

8 Give the reason for the mode of εἶη (b, 2), μέλλοιεν (b, 3), ἦλθετε (b, 8), βουλοίμην (c, 1), μέλλωμεν (c, 3), περαίνοιτο (c, 7). Classify the following participles: ἀκούσας (a, 5), πεφευγώς (b, 1). Decline ὑμᾶς (a, 3) in singular and plural.

9 From what verb is each of the following and where is the form found: κατακεκόψεσθαι (a, 3), τέθνηκεν (b, 1), ὤρμητο (b, 2), φαίῃ (b, 4), παρέστω (c, 6)?

10 Conjugate τετελεύτηκεν (b, 6), μέλλοιτο (c, 7) in the voice, mode and tense here found. Write the first form of each mode (including participle) of ἀκούσαντες (b, 4) in the voice and tense here found. Compare κακῶς (a, 3).

11 Write the principal parts of πεφευγώς (b, 1), περιμένοντες (b, 3), πυνθανόμενοι (b, 5), ἔφερον (b, 5), αἰρέσθε (c, 3).

12 Draw an outline map and on it trace the route of the 10,000. Indicate the course of the Euphrates river, the Tigris river and the location of Sardis, Cunaxa, Trapezus, giving the name in each case.

13 Give the reason for the tense of νικῶμέν (b, 7). State the force of μὲν (b, 6). State *two* ways (not found on this paper) of expressing a wish, and write and translate a sentence illustrating each. Mention the duties of a κῆρυξ (c, 6).

14 Give the derivation or composition of *each* of the following words and the meaning of each part: ὅθενπερ (b, 4), τετελεύτηκεν (b, 6). Show how the meaning of σταθμῷ (b, 2) is derived. Give, with meaning, the Greek words from which the following are derived: chronologic, oligarchy.

15 Translate into English [This must be taken by those who desire credit for the fourth book]:

THE GREEKS ADVANCE AND ROUT THE ENEMY

Πορευόμενοι δ' ἐντυγχάνουσι λόφῳ ὑπὲρ τῆς ὁδοῦ κατελιγμένην ὑπὸ τῶν πολεμίων, οὗς ἢ ἀποκόψαι ἦν ἀνάγκη ἢ διεξεῦχθαι ἀπὸ τῶν ἄλλων Ἑλλήνων. καὶ αὐτοὶ μὲν ἂν ἐπορεύεσθαι ἤπερ οἱ ἄλλοι, τὰ δὲ ὑποζύγια οὐκ ἦν ἄλλη ἢ ταύτη ἐκβῆναι. ἔνθα δὴ παρακελευσάμενοι ἀλλήλοις προσβάλλουσι πρὸς τὸν λόφον ὀρθίοις τοῖς λόχοις, οὐ κύκλῳ ἀλλὰ καταλιπόντες ἄφοδον τοῖς πολεμίοις, εἰ βούλονται φεύγειν. καὶ τίως μὲν αὐτοὺς ἀναβαίνοντας ὅπη ἐδύνατο ἕκαστος οἱ βάρβαροι ἐτόξευον καὶ ἔβαλλον, ἐγγὺς δ' οὐ προσίεντο, ἀλλὰ φυγῇ λέιπονται τὸ χωρὶον.— 4, 2

XENOPHON'S ANABASIS

Tuesday, June 16, 1903—1.15 to 4.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a

CYRUS DECEIVES THE KING

- 1 Πρὸς δὲ βασιλέα πέμπων ἡξίου ἀδελφὸς ὦν αὐτοῦ δοθῆναι οἱ ταύτας
2 τὰς πόλεις μᾶλλον ἢ Τισσαφέρην ἄρχειν αὐτῶν, καὶ ἡ μήτηρ συνέπραττεν
3 αὐτῷ ταῦτα· ὥστε βασιλεὺς τὴν μὲν πρὸς ἑαυτὸν ἐπιβουλὴν οὐκ ᾔσθάνετο,
4 Τισσαφέρνῃ δὲ ἐνόμιζε πολεμοῦντα αὐτὸν ἀμφὶ τὰ στρατεύματα δαπανᾶν
5 ὥστε οὐδὲν ἤχθετο αὐτῶν πολεμοῦντων. καὶ γὰρ ὁ Κῦρος ἀπέπεμπε τοὺς
6 γιγνομένους δασμοὺς βασιλεῖ ἐκ τῶν πόλεων ὧν Τισσαφέρηνς ἐτύγχανεν
7 ἔχων.—1, 1

b

CLEARCHUS ANSWERS PHALINUS

- 1 Εἰ δὲ δέοι πολεμεῖν, ἄμεινον ἂν πολεμεῖν ἔχοντες τὰ ὅπλα ἢ ἄλλω
2 παραδόντες. ὁ δὲ Φαλῖνος εἶπε· Ταῦτα μὲν δὴ ἀπαγγελοῦμεν· ἀλλὰ καὶ τάδε
3 ὑμῖν εἰπῶν ἐκέλευσε βασιλεὺς ὅτι μένουσι μὲν ὑμῖν αὐτοῦ σπονδαὶ εἴησαν,
4 προιοῦσι δὲ καὶ ἀπιούσι πόλεμος. εἶπατε οὖν καὶ περὶ τούτου πότερα
5 μενεῖτε καὶ σπονδαὶ εἰσιν ἢ ὡς πολέμου ὄντος παρ' ὑμῶν ἀπαγγείλω.
6 Κλέαρχος δ' ἔλεξεν· Ἀπάγγελλε τοίνυν καὶ περὶ τούτου ὅτι καὶ ἡμῖν
7 ταῦτά δοκεῖ ἄπερ καὶ βασιλεῖ. Τί οὖν ταῦτά ἐστιν; ἔφη ὁ Φαλῖνος.
8 ἀπεκρίθη ὁ Κλέαρχος· Ἦν μὲν μένωμεν, σπονδαί, ἀπιούσι δὲ καὶ
9 προιοῦσι πόλεμος.—2, 1

c

XENOPHON ADVISES THE GREEKS

- 1 Ἄλλα γάρ, ὦ ἄνδρες, πάντα ταῦτα τάχαθὰ δῆλον ὅτι τῶν κρατούντων
2 ἐστί· τοῦτο δὲ δεῖ λέγειν ὅπως ἂν πορευοίμεθά τε ὡς ἀσφαλέστατα καὶ εἰ
3 μάχεσθαι δέοι ὡς κράτιστα μαχοίμεθα. πρῶτον μὲν τοίνυν, ἔφη, δοκεῖ
4 μοι κατακαῦσαι τὰς ἀμάξας ἃς ἔχομεν, ἵνα μὴ τὰ ζεύγη ἡμῶν στρατηγῇ,
5 ἀλλὰ πορευώμεθα ὅπῃ ἂν τῇ στρατιᾷ συμφέρῃ· ἔπειτα καὶ τὰς σκητὰς
6 συγκατακαῦσαι. αὐταὶ γὰρ αὖ ὄχλον μὲν παρέχουσιν ἄγειν, συνωφελοῦσι
7 δ' οὐδὲν οὔτε εἰς τὸ μάχεσθαι οὔτ' εἰς τὸ τὰ ἐπιτήδεια ἔχειν.—3, 2

6 Translate into Greek:

a The king orders you to furnish provisions for his army.

b Do not be vexed, for I will give you these cities that you may reign over them.

c If we should give up our arms, we should not be able to fight.

7 Give the reason for the case of αἰτοῦ (*a*, 1), αὐτῷ (*a*, 3), ταῦτα (*a*, 3), βασιλεῖ (*a*, 6), ὧν (*a*, 6), πολέμου (*b*, 5), στρατιᾷ (*c*, 5); for the mode of δαπανᾶν (*a*, 4), λέγειν (*c*, 2), μάχεσθαι (*c*, 7).

8 Give the reason for the mode of δέοι (*b*, 1), εἶπαν (*b*, 3), πορευοίμεθα (*c*, 2), πορευόμεθα (*c*, 5), συμφέρῃ (*c*, 5). Classify the following participles: ὦν (*a*, 1), ἀπιοῦσι (*b*, 8). Decline τάδε (*b*, 2) in the singular, all genders.

9 From what verb is each of the following and where is the form found: δοθῆναι (*a*, 1), συνέπραττεν (*a*, 2), ἀπαγγελοῦμεν (*b*, 2), ἀπεκρίθη (*b*, 8), κρατούντων (*c*, 1)?

10 Conjugate ἀπέπεμπε (*a*, 5), πορευοίμεθα (*c*, 2) in the voice, mode and tense here found. Write the first form of each mode, including participle, of ἐκέλευσε (*b*, 3) in the voice and tense here found. Compare μάλλον (*a*, 2).

11 Write the principal parts of ἄρχειν (*a*, 2), ἡσθάνετο (*a*, 3), ἐτύγγανεν (*a*, 6), παραδόντες (*b*, 2), ἔφη (*b*, 7).

12 Mention *three* uses (not found on this paper) of the negative particle μή. Write Greek sentences illustrating *two* of these uses.

13 Explain the force of the tense of ἡξίου (*a*, 1); the reference in δασμῶν (*a*, 6); the contraction in τάγαθὰ (*c*, 1). Explain the use of the participle with ἐτύγγανεν (*a*, 6) and mention *one* other Greek verb which requires this use of the participle. Mention the mode or modes used with *each* of the following: εἰ, ἐάν.

14 Give the composition of each of the following words and the meaning of each part: προιοῦσι (*b*, 4), κατακαῦσαι (*c*, 4), συνωφελοῦσι (*c*, 6). Show how the meaning of σπονδαὶ (*b*, 3) is derived. Give, with meaning, an English word derived from the stem of πόλις (*a*, 2), ἄρχειν (*a*, 2).

15 Translate into English [This must be taken by those who desire credit for the fourth book]:

THE GREEKS ENCAMP IN THE SNOW

Ἦν δὲ τῆς χιόνος τὸ βάθος ὀργυῖα· ὥστε καὶ τῶν ὑποχυγίων καὶ τῶν ἀνδραπόδων πολλὰ ἀπώλετο καὶ τῶν στρατιωτῶν ὡς τριάκοντα. διεγένοντο δὲ τὴν νύκτα πῦρ καίοντες· ξύλα δ' ἦν ἐν τῷ σταθμῇ πολλά· οἱ δὲ ὅψι προσιόντες ξύλα οὐκ εἶχον. οἱ οὖν πάλοι ἤκοντες καὶ πῦρ καίοντες οὐκ προσίεσαν πρὸς τὸ πῦρ τοὺς ὀψίζοντας, εἰ μὴ μεταδοῖεν αὐτοῖς πυρὸς ἢ ἄλλο τι εἴ τι ἔχουεν βρωτόν. ἔνθα δὴ μετεδίδουσιν ἀλλήλοις ὧν εἶχον ἕκαστοι. ἔνθα δὲ τὸ πῦρ ἐκαίετο, διατηρομένης τῆς χιόνος βόθροι ἐγένοντο μεγάλοι ἕστε ἐπὶ τὸ δάπεδον· οἱ δὲ παρὴν μετρεῖν τὸ βάθος τῆς χιόνος.— 4, 5

Thursday, January 29, 1903—1.15 to 4.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a AGAMEMNON ANGRILY ANSWERS CALCHAS

- 1 Ἡ τοι ὃ γ' ὥς εἰπὼν κατ' ἄρ' ἔζετο, τοῖσι δ' ἀνίστη
- 2 ἦρως Ἀτρεΐδης εὐρὺ κρείων Ἀγαμέμνων
- 3 ἀχνύμενος· μένεος δὲ μέγα φρένες ἀμφιμέλαιαι
- 4 πῖμπλαντ', ὅσσε δέ οἱ πυρὶ λαμπετόωντι ἔκταν.
- 5 Κάλχαντα πρῶτιστα κάκ' ὀσσόμενος προσέειπεν·
- 6 "μάντι κακῶν, οὐ πῶ ποτέ μοι τὸ κρήγυνον ἔπας·
- 7 αἰεὶ τοι τὰ κάκ' ἐστὶ φίλα φρεσὶ μαντεύσθαι,
- 8 ἐσθλὸν δ' οὔτε τί πω ἔπας ἔπος οὔτε τέλεισσας."—1, 101-108

b ODYSSEUS REBUKES THERSITES

- 1 Οὐ γὰρ ἐγὼ σέο φημὶ χειρότερον βροτὸν ἄλλον
- 2 ἔμμεναι, ὅσσοι ἅμ' Ἀτρεΐδης ὑπὸ Ἴλιον ἦλθον.
- 3 τῷ οὐκ ἂν βασιλῆας ἀνὰ στόμ' ἔχων ἀγορεύεις,
- 4 καὶ σφιν ὄνειδέα τε προφέροις νόστον τε φυλάσσοις.
- 5 οὐδέ τί πω σάφα ἴδμεν, ὅπως ἔσται τάδε ἔργα,
- 6 ἢ εὖ ἦε κακῶς νοστήσομεν νῆες Ἀχαιῶν . . .
- 7 ἀλλ' ἔκ τοι ἐρέω, τὸ δὲ καὶ τετελεσμένον ἔσται·
- 8 εἴ κ' ἔτι σ' ἀφραίνοντα κιχήσομαι, ὥς νύ περ ὤδε,
- 9 μηκέτ' ἔπειτ' Ὀδυσῆι κάρη ὤμοισιν ἐπείη.—2, 248-253 . . . 257-259

c IRIS CALLS HELEN TO WITNESS THE COMBAT

- 1 Δεῦρ' ἴθι, νύμφα φίλη, ἵνα θέσκελα ἔργα ἴδῃαι
- 2 Τρώων θ' ἱπποδάμων καὶ Ἀχαιῶν χαλκοχιτώνων·
- 3 οἱ πρὶν ἐπ' ἀλλήλοισι φέρον πολὺδακρυν Ἄρηα
- 4 ἐν πεδίῳ, ὀλοοῖο λιλαϊόμενοι πολέμοιο,
- 5 οἱ δὴ νῦν ἕαται σιγῇ, πόλεμος δὲ πέπαιται,
- 6 ἀσπίσι κεκλιμένοι, παρὰ δ' ἔγχεα μακρὰ πέπηγεν.
- 7 αὐτὰρ Ἀλέξανδρος καὶ ἀρηΐφιλος Μενέλαος
- 8 μακρῆς ἐγχείησι μαχήσονται περὶ σείο.—3, 130-137

6 Translate into Greek [Do not use rare or poetic constructions]:

a We shall not have to plunder the village in order to obtain provisions if the barbarians bring them to us.

b Let us remain here till our horsemen announce what the army of the enemy is doing.

7 Write the Attic prose form for τοῖσι (*a*, 1), μέγας (*a*, 3), προσέειπεν (*a*, 5), ὅσσοι (*b*, 2), Ὀδυσῆι (*b*, 9), ἴδῃαι (*c*, 1), ὀλοοῖο (*c*, 4), ἔσται (*c*, 5), μακρῆς (*c*, 8), ἐγγχείῃσι (*c*, 8).

8 Outline the story of the *Iliad* as given in the first two books.

9 Give the reason for the case of τοῖσι (*a*, 1), κακῶν (*a*, 6), φρεσὶ (*a*, 7), σῶ (*b*, 1), βροτὸν (*b*, 1), πολέμοιο (*c*, 4), ἐγγχείῃσι (*c*, 8); for the mode of ἀγορεύεις (*b*, 3), ἐπεὶ (*b*, 9), ἴδῃαι (*c*, 1).

10 Classify the following participles: εἰπὼν (*a*, 1), λυλαιόμενοι (*c*, 4). Give the syntax of μαντεύεσθαι (*a*, 7), ἀφραίνοντα (*b*, 8). Conjugate πίμπλαντ' (*a*, 4), ἔσται (*b*, 5) in the voice, mode and tense here found.

11 From what verb is each of the following and where is the form found: ἔικτην (*a*, 4), κυχίσσομαι (*b*, 8), ἴθι (*c*, 1), ἔσται (*c*, 5), πέπηγεν (*c*, 6)?

12 Write the principal parts of πίμπλαντ' (*a*, 4), τέλεισας (*a*, 8), φυλάσσοις (*b*, 4), πέπανται (*c*, 5). Decline Κάλχαντα (*a*, 5), Ὀδυσῆι (*b*, 9).

13 Give the force of πῶ (*a*, 6), καὶ (*b*, 7), περ (*b*, 8). State the antecedent of αἶ (*c*, 3). Explain in full the syntax of ἔπος (*a*, 8).

14 Give the composition of each of the following words and the meaning of each part: ἀμφιμέλαιναί (*a*, 3), προφέροις (*b*, 4), ἵπποδάμων (*c*, 2). Mention *two* epithets other than εὐρὺν κρείων (*a*, 2) applied to Agamemnon. Point out and define a rhetorical figure in (*c*).

15 Scan the last *three* lines of (*b*), marking quantity of syllables, division into feet and principal cesuras. Define hiatus. Account for the hiatus in (*b*, 7).

University of the State of New York
High School Department

178TH EXAMINATION

HOMER'S ILIAD

Thursday, June 18 1903—1.15 to 4.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a THETIS PRAYS TO ZEUS

- 1 Ζεῦ πάτερ, εἴ ποτε δῆ σε μετ' ἀθανάτοισιν ὄνῃσα
- 2 ἡ ἔπει ἡ ἔργῳ, τόδε μοι κρήνον ἐέλδωρ·
- 3 τίμησόν μοι υἱόν, ὃς ὠκυμώτατος ἄλλων
- 4 ἔπλετ'· ἀτάρ μιν νῦν γε ἀναξ ἀνδρῶν Ἀγαμέμνων
- 5 ἡτίμησεν· ἐλὼν γὰρ ἔχει γέρας, αὐτὸς ἀπούρας.
- 6 ἀλλὰ σύ περ μιν τίσον, Ὀλύμπιε μητίετα Ζεῦ·
- 7 τόφρα δ' ἐπὶ Τρώεσσι τίθει κράτος, ὅφρ' ἂν Ἀχαιοὶ
- 8 υἱὸν ἐμὸν τίσωσιν ὀφέλλωσιν τέ εἰ τιμῇ.—1, 503-510

b ATHENA OBEYS THE COMMAND OF HERA

- 1 Ἄλλ' ἴθι νῦν κατὰ λαὸν Ἀχαιῶν χαλκοχιτώνων,
- 2 σοῖς ἀγανοῖς ἐπέεσσιν ἐρήτνε φῶτα ἕκαστον,
- 3 μηδὲ ἱα νῆας ἅλαδ' ἐλκόμεν ἀμφιελίσσας.
- 4 ὥς ἔφατ', οὐδ' ἀπίθῃσε θεά, γλαυκῶπις Ἀθήνη·
- 5 βῆ δὲ κατ' Οὐλύμποιο καρήνων αἶψα,σ,
- 6 καρπαλίμως δ' ἵκανε θοὰς ἐπὶ νῆας Ἀχαιῶν.
- 7 εὖρεν ἔπειτ' Ὀδυσῆα Διὶ μῆτιν ἀτάλαντον
- 8 ἐστεῶτα.—2, 163-170

c THE HERALD SUMMONS PRIAM

- 1 Ὅρσεο, Λαομεδοντιάδῃ, καλέονσιν ἄριστοι
- 2 Τρώων θ' ἱπποδάμων καὶ Ἀχαιῶν χαλκοχιτώνων
- 3 ἐς πεδίον καταβῆναι, ἵν' ὄρκια πιστὰ τάμῃτε·
- 4 αὐτὰρ Ἀλέξανδρος καὶ ἀρηίφιλος Μενέλαος
- 5 μακρῆς ἐγχείρῃσι μαχήσονται ἀμφὶ γυναικί·
- 6 τῷ δέ κε νικήσαντι γυνὴ καὶ κτήμαθ' ἔποκτο·
- 7 οἱ δ' ἄλλοι φιλότῃ καὶ ὄρκια πιστὰ ταμόντες
- 8 ναίομεν Τροίην ἐριβώλακα, τοὶ δὲ νέονται
- 9 Ἄργος ἐς ἱππόβοτον καὶ Ἀχαιῖδα καλλιγύναικα.—3, 250-258

6 Translate into Greek [Do not use rare or poetic constructions]:

a The king said that if we remained faithful to him, he would honor us and give us many gifts.

b Let us not allow the Greeks to conquer in this war.

c He promised to give us ships in order that we might sail homeward.

7 Write the Attic prose form for *θανάτοις* (*a*, 1), *μιν* (*a*, 4), *νήας* (*b*, 3), *ἐλκόμεν* (*b*, 3), *βῆ* (*b*, 5), *Οὐλύμπιου* (*b*, 5), *Ὀδυσῆα* (*b*, 7), *δραιο* (*c*, 1), *καλίουσιν* (*c*, 1), *καί* (*c*, 6).

8 State the circumstances that led to the command given by Hera to Athena in (*b*). Give an account of the duel between Paris and Menelaus referred to in (*c*), and state its result.

9 Give the reason for the case of *μοι* (*a*, 3), *ἄλλων* (*a*, 3), *ἀνδρῶν* (*a*, 4), *τιμῇ* (*a*, 8), *Ἀχαιῶν* (*b*, 6), *Διὶ* (*b*, 7), *μητρί* (*b*, 7), *τῷ* (*c*, 6). Explain in full *νέονται* (*c*, 8).

10 Give the reason for the mode of *οὐφύλλωσιν* (*a*, 8), *καταβῆναι* (*c*, 3), *τάμηντε* (*c*, 3), *ἔποιτο* (*c*, 6). Conjugate *ἡτίμησεν* (*a*, 5), *ἔποιτο* (*c*, 6) in the voice, mode and tense here found.

11 From what verb is each of the following and where is the form found: *δῆσα* (*a*, 1), *τίμησόν* (*a*, 3), *ἔπλετ'* (*a*, 4), *μαχήσοντ'* (*c*, 5), *ταμόντες* (*c*, 7)?

12 Write the principal parts of *τίθει* (*a*, 7), *εὔρεν* (*b*, 7), *καταβῆναι* (*c*, 3). Decline, in singular and plural, *γέρας* (*a*, 5), *γυνή* (*c*, 6).

13 Explain the reference in *γέρας* (*a*, 5). With what is *σύ* (*a*, 6) contrasted? Mention *τινω* endings similar to *-δέ* in *ἄλαδ'* (*b*, 3) and give the force of each. Account for the position of the breathing of *δίξασα* (*b*, 5).

14 Give the composition of each of the following words and the meaning of each part: *ὠκυμωρῶτατος* (*a*, 3), *ἀργίφιλος* (*c*, 4), *ἱππόβοτον* (*c*, 9). Mention and define the rhetorical figure in *οὐδ' ἀπίθησε* (*b*, 4). Show how the meaning of *ταμόντες* (*c*, 7) is derived.

15 Scan the first *three* lines of (*c*), marking quantity of syllables, division into feet and principal cesuras. Define and illustrate synizesis, apocope.

Tuesday, January 27, 1903—1.15 to 4.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a

THE KINDNESS OF AGESILAUS

1 Γινώσκων δ' ὅτι ἡ μὲν πορθουμένη καὶ ἐρημουμένη χώρα οὐκ ἂν δύνατο
2 πολὺν χρόνον στράτευμα φέρειν, ἡ δ' οἰκουμένη μὲν σπειρομένη δὲ ἀνάσσει
3 ἂν τὴν τροφήν παρέχει, ἐπεμέλετο οὐ μόνον τοῦ βίᾳ χειροῦσθαι τοὺς ἐναν-
4 τίους, ἀλλὰ καὶ τοῦ πρῶτῃ προσάγεσθαι. καὶ πολλάκις μὲν προηγόρευε
5 τοῖς στρατιώταις τοὺς ἀλικομένους μὴ ὡς ἀδίκους τιμωρεῖσθαι, ἀλλ' ὡς
6 ἀνθρώπους ὄντας φυλάττειν, πολλάκις δὲ ὅποτε μεταστρατοπεδεύοιτο, εἰ
7 αἰσθοῖτο καταλελειμμένα παιδάρια παρὰ ἐμπόρων, ἃ πολλοὶ ἐπώλουν διὰ
8 τὸ νομίζειν μὴ δύνασθαι ἂν φέρειν αὐτὰ καὶ τρέφειν, ἐπεμέλετο καὶ τούτων
9 ὅπως συγκομίζοντό ποι.—Xenophon, Agesilaus, 1

b

THE RESULTS OF THE BATTLE OF NOTIUM

1 Ἐκ τούτου δ' ἐνανυμάχησαν οἱ μὲν ἐν τάξει, οἱ δὲ Ἀθηναῖοι διεσπαρμέναις
2 ταῖς ναυσὶ, μέχρι οὗ ἐφυγον ἀπολέσαντες πεντεκαίδεκα τριήρεις. τῶν δὲ
3 ἀνδρῶν οἱ μὲν πλείστοι ἐξέφυγον, οἱ δ' ἐζωγρήθησαν. Λύσανδρος δὲ τὰς
4 τε καὶ ἀναλαβὼν καὶ τροπαῖον στήσας ἐπὶ τοῦ Νοτίου διέπλευσεν εἰς
5 Ἐφεσον, οἱ δὲ Ἀθηναῖοι εἰς Σάμον. μετὰ δὲ ταῦτα Ἀλκιβιάδης ἔλθων εἰς
6 Σάμον ἀνήχθη ταῖς ναυσὶν ἀπάσαις ἐπὶ τὸν λιμένα τῶν Ἐφεσίων, καὶ πρὸ
7 τοῦ στόματος παρέταξεν, εἰ τις βούλοιτο ναυμαχεῖν. ἐπειδὴ δὲ Λύσανδρος
8 οὐκ ἀντανήγαγε διὰ τὸ πολλὰς ναυσὶν ἐλαττοῦσθαι, ἀπέπλευσεν εἰς
9 Σάμον.—Xenophon, Hellenica, 1, 5

c

THE ENTRANCE TO LIFE

1 Τοῦτο πρῶτον δεῖ εἶδέναι ὑμᾶς, ὅτι καλεῖται οὗτος ὁ τόπος βίος. καὶ ὁ
2 ὄχλος ὁ πολὺς ὁ παρὰ τὴν πύλιν ἐφιστῶς οἱ μέλλοντες εἰσπορεύεσθαι εἰς
3 τὸν βίον οὗτοί εἰσιν. ὁ δὲ γέρων ὁ ἄνω ἐστηκὼς ἔχων χάρτην τιὰν ἐν τῇ
4 χειρὶ καὶ τῇ ἐτέρᾳ ὥσπερ δεικνύν τι, οὗτος Δαίμων καλεῖται· προστάττει
5 δὲ τοῖς εἰσπορευομένοις, τί δεῖ αὐτοὺς ποιεῖν, ὡς ἂν εἰσέλθωσιν εἰς τὸν
6 βίον· δεικνύει δὲ ποῖαν ὁδὸν αὐτοὺς δεῖ βαδίζειν, εἰ μέλλουσι σώζεσθαι ἐν
7 τῇ βίῳ.—Cebes, Tabula, 4

6 Translate into Greek:

a Children were often abandoned, since many people thought it impossible to rear them.

b If the Athenians had fought in good order, they would not have lost their ships.

c Genius was standing beside the gate in front of which was a large throng.

7 Give an account of the circumstances leading up to the defeat of the Athenians mentioned in (*b*), and state the effects of this defeat on the career of Alcibiades.

8 Give the reason for the case of χρόνον (*a*, 2), ἀνδρῶν (*b*, 3), ναυσὶν (*b*, 6), ναυσὶν (*b*, 8), ἐτέρᾳ (*c*, 4); for the mode of δύναιτο (*a*, 1), μεταστρατοπεδεύοιτο (*a*, 6), συγκομίζονται (*a*, 9), βούλοιο (*b*, 7), εἰσέλθωσιν (*c*, 5).

9 Classify the following participles: γιγνώσκων (*a*, 1), ἀναλαβὼν (*b*, 4). Give the syntax of φέρειν (*a*, 2), τιμωρεῖσθαι (*a*, 5), ἐλαττοῦσθαι (*b*, 8), εἰδέναι (*c*, 1), εἰσπορευομένους (*c*, 5). Decline λιμένα (*b*, 6) in singular and plural, ναυσὶν (*b*, 8) in the singular.

10 From what verb is each of the following and where is the form found: προσάγεσθαι (*a*, 4), αἰσθοίτο (*a*, 7), καταλειμμένα (*a*, 7), ἔφεστώς (*c*, 2), εἰσπορευομένους (*c*, 5)?

11 Write the principal parts of τρέφειν (*a*, 8), ἀπολίσαντες (*b*, 2), ἐξέφυγον (*b*, 3), ἐλθὼν (*b*, 5), προστάττει (*c*, 4).

12 Conjugate ἐπεμέλετο (*a*, 3), ἀνήχθη (*b*, 6) in the voice, mode and tense here found. Write the first form of each mode, including participle, of καλεῖται (*c*, 4) in the voice and tense here found. Compare the adverb formed from πολλαῖς (*b*, 8).

13 Give the force of παρά in παρέχοι (*a*, 3), of ποι (*a*, 9), of ἀνά in ἀνήχθη (*b*, 6). Account for the accent of οὗτοί εἰσιν (*c*, 3), τί (*c*, 5).

14 Translate into Greek:

Agessilaus, in order that he might have unfailing supplies for his army, ordered his soldiers not to lay waste the country of the enemy. For he thought that kindness rather than violence would win over the enemy.

15 Give the derivation or composition of each of the following words and the meaning of each part: ἀδίκους (*a*, 5), συγκομίζονται (*a*, 9), ἐνανυμάχθησαν (*b*, 1). Show how the meaning of τροπαῖον (*b*, 4) is derived. Give the force of the tense of ἐπώλουν (*a*, 7).

Tuesday, June 16, 1903—1.15 to 4.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a

AGESILAUS PREPARES FOR BATTLE

- 1 Αισθόμενος δὲ ὁ Ἀγχιλαὸς βοηθεῖν ἐκέλευσε τοὺς ἱππείας. οἱ δ'
- 2 αὐτὸ Πέρσαι ὡς εἶδον τὴν βοήθειαν, ἠθροίσθησαν καὶ ἀντιπαρετάξαντο
- 3 παμπληθέσι τῶν ἱππέων τάξεσιν. ἔνθα δὴ ὁ Ἀγχιλαὸς γινώσκων ὅτι
- 4 τοῖς μὲν πολεμίοις οὐπω παρείη τὸ πεζόν, αὐτῷ δὲ οὐδὲν ἀπείη τῶν
- 5 παρεσκευασμένων, καιρὸν ἡγήσατο μάχην συνάψαι, εἰ δύναιτο. σφαγασά-
- 6 μενος οὖν τὴν μὲν φάλαγγα εὐθὺς ἤγεν ἐπὶ τοὺς ἀντιτεταγμένους ἱππείας,
- 7 ἐκ δὲ τῶν ὀπλιτῶν ἐκέλευσε τὰ δέκα ἀφ' ἧβης θεῖν ὁμόσε αὐτοῖς, τοῖς δὲ
- 8 πελτασταῖς εἶπε δρόμῳ ὑφ' ἡγεῖσθαι· παρήγγειλε δὲ καὶ τοῖς ἱππεύουσιν
- 9 ἐμβάλλειν, ὡς αὐτοῦ τε καὶ παντὸς τοῦ στρατεύματος ἐπομένου.

—Xenophon, Agesilaus, 1

b

THE SPARTANS ASK CYRUS FOR AID

- 1 Ἐπεὶ δ' ἦκεν, ἀνέβη πρὸς αὐτὸν σὺν τοῖς ἐκ Λακεδαιμόνους πρέσβεσιν.
- 2 ἐνταῦθα δὴ κατὰ τε τοῦ Τισσαφέρους ἔλεγον ἃ πεποιηκώς εἶη, αὐτοῦ τε
- 3 Κύρου ἐδύνοντο ὡς προθυμοτάτου πρὸς τὸν πόλεμον γενέσθαι. Κύρος δὲ
- 4 τὸν τε πατέρα ἔφη ταῦτα ἐπεσταλκέναι καὶ αὐτὸς οὐκ ἄλλ' ἐγνωκέναι, ἀλλὰ
- 5 πάντα ποιήσειν· ἔχων δὲ ἦκεν τάλαντα πεντακόσια· ἐὰν δὲ ταῦτα ἐκλείπῃ,
- 6 τοῖς ἰδίοις χρήσεσθαι ἔφη, ἃ ὁ πατήρ αὐτῷ ἔδωκεν· ἐὰν δὲ καὶ ταῦτα, καὶ
- 7 τὸν θρόνον κατακόψειν ἐφ' οὗ ἐκάθητο, ὄντα ἀργυροῦν καὶ χρυσοῦν.

—Xenophon, Hellenica, 1, 5

c

THE PROMISES OF HAPPINESS ARE DECEITFUL

- 1 Καὶ πᾶσαι γε, ἔφη, ἐπαγγέλλονται ὡς ἐπὶ τὰ βέλτιστα ἀξοῦσαι καὶ εἰς
- 2 βίον εὐδαίμονα καὶ λυσιτελεῖν. οἱ δὲ διὰ τὴν ἀγνοίαν καὶ τὸν πλάνον, ὅν
- 3 πεπώκασιν παρὰ τῆς Ἀπάτης, οὐχ εὐρίσκουσι ποία ἐστὶν ἡ ἀληθινὴ ὁδὸς
- 4 ἢ ἐν τῷ βίῳ, ἀλλὰ πλανῶνται εἰκῇ, ὥσπερ ὄρας καὶ τοὺς πρότερον
- 5 εἰσπορευομένους ὡς περιάγονται ὅποι ἂν τύχῃ.
- 6 Ὅρῳ τοῦτους, ἔφη. ἡ δὲ γυνὴ ἐκείνῃ τίς ἐστὶν ἡ ὥσπερ τυφλὴ καὶ
- 7 μαινομένη τις εἶναι δοκοῦσα καὶ ἐστηκυῖα ἐπὶ λίθου τινὸς στρογγύλου;
- 8 Καλεῖται μὲν, ἔφη, Τύχη· ἐστὶ δὲ οὐ μόνον τυφλὴ καὶ μαινομένη,
- 9 ἀλλὰ καὶ κωφή.—Cebes, Tabula, 6-7

6 Translate into Greek:

a If they should ask Cyrus to assist them, he would do all that he could.

b He told us that the name of the blind woman whom we saw was Fortune.

c Let us do whatever he bids us, for he knows what is best.

7 Write an account of Agesilaus, touching on (*a*) character, (*b*) services to his country.

8 Give the reason for the case of *ἱππέων* (*a*, 3), *τάξεις* (*a*, 3), *πολεμίοις* (*a*, 4), *αὐτοῖς* (*a*, 7), *αὐτοῦ* (*a*, 9), *πατέρα* (*b*, 4), *αὐτῷ* (*b*, 6). Classify the following participles: *γινώσκων* (*a*, 3), *ὄντα* (*b*, 7), *ἄξουσιν* (*c*, 1).

9 Give the reason for the mode of *παρεῖη* (*a*, 4), *δύναιτο* (*a*, 5), *ἐκλίπη* (*b*, 5), *τύχη* (*c*, 5). Give the syntax of *βοηθεῖν* (*a*, 1), *συνάψαι* (*a*, 5), *κατακόψεν* (*b*, 7). Decline *χρυσοῦν* (*b*, 7) in the singular, all genders.

10 From what verb is each of the following and where is the form found: *ἠθροίσθησαν* (*a*, 2), *παρεσκευασμένων* (*a*, 5), *ἡγήσατο* (*a*, 5), *χρήσεσθαι* (*b*, 6), *ἐκάθητο* (*b*, 7)?

11 Write the principal parts of *γινώσκων* (*a*, 3), *ἔλεγον* (*b*, 2), *ἔδωκεν* (*b*, 6), *κατακόψεν* (*b*, 7), *δοκοῦσα* (*c*, 7).

12 Conjugate *ἔδόντο* (*b*, 3), *ἐκλίπη* (*b*, 5) in the voice, mode and tense here found. Write the first form of each mode, including participle, of *παρήγγειλε* (*a*, 8) in the voice and tense here found. Compare *εὐδαίμονα* (*c*, 2).

13 Give the force of *αὖ* (*a*, 2), *οὖν* (*a*, 6); of the tense of *ἔδόντο* (*b*, 3). Explain in full the reason for the mode of *πεποιηκώς* *εἶη* (*b*, 2); for the case of *προθυμοτάτου* (*b*, 3).

14 Translate into Greek: Agesilaus collected a great number of infantry and cavalry in order that at the proper time he might be able to join battle with the enemy. For he knew that, though the enemy had many troops of cavalry, they had no infantry.

15 Give the composition of each of the following words and the meaning of each part: *ἀντιπαρετάξαντο* (*a*, 2), *παμπληθέσι* (*a*, 3), *ἐκλίπη* (*b*, 5). State the connection of each of the following with the story of the *Tabula*: *Ἀπάτης* (*c*, 3), *Τύχη* (*c*, 8).

Thursday, January 29, 1903—1.15 to 4.15 p. m., only

Answer the first seven questions and three of the others but no more. If more than three of the others are answered only the first three answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a

HELIOS BESEECHES THE GODS TO AVENGE HIM

- 1 Αὐτίκα δ' ἀθανάτοισι μετηΐδα χωόμενος κῆρ·
- 2 Ζεῦ πάτερ ἢ δ' ἄλλοι μάκαρες θεοὶ αἰὲν ἔόντες,
- 3 τίσαι δὴ ἐτάρους Λαερτιάδῃ Ὀδυσῆος,
- 4 οἳ μιν βοῦς ἔκτειναν ὑπέρβιον, ἦσιν ἐγὼ γε
- 5 χαίρεσκον μὲν ἰὼν εἰς οὐρανὸν ἀστερόεντα,
- 6 ἢ δ' ὅπῃ ἐπὶ γαίαν ἀπ' οὐρανόθεν προτραποίμην.
- 7 εἰ δέ μοι οὐ τίσονσι βοῶν ἐπιεικέ' ἀμοιβήν,
- 8 δύσομαι εἰς Αἴδαο καὶ ἐν νεκύεσσι φαείνω.

—Homer, *Odyssey*, 12, 376-383

ὑπέρβιον=insolently, τίνω ἐπιεικέα ἀμοιβήν=give fair recompense

b

THE GENERALS CALL THE ARMY TOGETHER

- 1 Ἀκούσαντες ταῦτα καὶ δεξιὰς δόντες καὶ λαβόντες ἀπήλαινον· καὶ πρὸ
- 2 ἡμέρας ἐγένοντο ἐπὶ στρατοπέδῳ καὶ ἀπήγγελλαν ἕκαστοι τοῖς πέμψασιν.
- 3 ἐπεὶ δὲ ἡμέρα ἐγένετο, ὁ μὲν Ἀρίσταρχος πάλιν ἐκάλει τοὺς στρατηγούς·
- 4 τοῖς δ' ἔδοξε τὴν μὲν πρὸς Ἀρίσταρχον ὁδὸν ἔασαι, τὸ δὲ στράτευμα
- 5 συγκαλεῖται. καὶ συνήλθον πάντες πλὴν οἱ Νέωνος· οὗτοι δὲ ἀπέχον ἡ
- 6 δέκα στάδια. ἐπεὶ δὲ συνήλθον, ἀναστὰς Ξενοφῶν εἶπε τάδε. Ἄνδρες,
- 7 διαπλεῖν μὲν ἐνθα βουλόμεθα Ἀρίσταρχος τριήρεις ἔχων κωλύει· ὥστε εἰς
- 8 πλοῖα οὐκ ἀσφαλὲς ἐμβαίνειν.—Xenophon, *Anabasis*, 7, 3

εἰάω τὴν ὁδὸν=decline to go

c

SOCRATES DISCUSSES THE PROVERB, "KNOW THYSELF"

- 1 Πότερα δέ σοι δοκεῖ γινώσκειν ἑαυτόν, ὅστις τοῦνομα τὸ ἑαυτοῦ μόνον
- 2 οἶδεν, ἢ ὅστις, ὥσπερ οἱ τοὺς ἵππους ὠνούμενοι οὐ πρότερον οἰονται γινώ-
- 3 σκειν ὅν ἂν βούλωνται γινῶναι, πρὶν ἂν ἐπισκῆψωνται, πότερον ἰσχυρός
- 4 ἐστὶν ἢ ἀσθενής, καὶ πότερον ταχὺς ἢ βραδύς, οὕτως ἑαυτὸν ἐπισκεψάμενος,
- 5 ἔγνωκε τὴν αὐτοῦ δύναμιν; Οὕτως ἔμοιγε δοκεῖ, ἔφη, ὁ μὴ εἰδὼς τὴν αὐτοῦ
- 6 δύναμιν ἀγνοεῖν ἑαυτόν. Ἐκεῖνο δὲ οὐ φανερόν, ἔφη, ὅτι διὰ μὲν τὸ εἰδέναι
- 7 ἑαυτοὺς πλείστα ἀγαθὰ πάσχουσιν ἄνθρωποι, διὰ δὲ τὸ ἐψεῦσθαι ἑαυτῶν
- 8 πλείστα κακά; οἳ μὲν γὰρ εἰδότες ἑαυτοὺς τά τε ἐπιτήδεια ἑαυτοῖς ἴσασιν
- 9 καὶ διαγινώσκουσιν ἃ τε δύνανται καὶ ἃ μὴ.

—Xenophon, *Memorabilia*, 4, 2

ἐπισκοπέω=examine, βραδύς=slow, ἀγνοέω=be ignorant of, ψευδομαι=be mistaken in

6 Translate into Greek: (a) If the companions of Odysseus should kill these oxen, the gods would punish them, (b) He

heard that the generals desired all the army to come together on that day, (c) Let them examine and know themselves.

7 Translate into Greek: (a) He said that he knew what he ought to do and also what he ought not to do, (b) If Aristarchus, with the ships which he has, hinders the soldiers from embarking, they will not be able to sail whenever they desire.

8 Give the reason for the case of κῆρ (a, 1), ἦσιν (a, 4), βοῶν (a, 7), τοῖς (b, 4), ἑαυτοῖς (c, 8); for the mode of προτραποίμην (a, 6), ἐμβαίνειν (b, 8), γιγνώσκειν (c, 2), βούλωνται (c, 3), εἰδέναι (c, 6).

9 Translate into English:

Ἐνθα δὴ ὁ Ἀστυάγης λέγει πρὸς τὸν Κύρον, Ὡ παῖ, ἦν μάνης παρ' ἐμοί, πρῶτον μὲν τῆς παρ' ἐμὲ εἰσόδου σοι οὐ Σάκας ἄρξει, ἀλλ' ὅποταν βούλῃ εἰσεῖναι ὡς ἐμέ, ἐπὶ σοὶ ἔσται. ἔπειτα δὲ ἵπποις τοῖς ἐμοῖς χρήσει καὶ ἄλλοις ὁπόσοις ἂν βούλῃ, καὶ ὅποταν ἀπίης, ἔχων ἄπει οὓς ἂν αὐτὸς ἐθέλῃς.

—Xenophon, Cyropaedia, 1, 3

εἰσόδος=right of entrance, ἄρχω=control

10 Translate into English:

Οἱ δὲ Ἀθηναῖοι τὰ γεγενημένα καὶ τὴν πολιορκίαν ἐπεὶ ἤκουσαν, ἐψηφίσαντο βοηθεῖν ναυσὶν ἑκατὸν καὶ δέκα, εἰσβιβάζοντες τοὺς ἐν τῇ ἡλικίᾳ ὄντας ἅπαντας καὶ δούλους καὶ ἑλευθέρους· καὶ πληρώσαντες τὰς δέκα καὶ ἑκατὸν ἐν τριάκοντα ἡμέραις ἀπῆραν. —Xenophon, Hellenica, 1, 6

πολιορκία=siege, ἡλικία=military age, ἀπαίρω=sail away

11 Translate into Greek: (a) Cyrus made his preparations so secretly that the king did not suspect him, (b) If Socrates had been willing to flee from his native land, he could have saved his life, (c) The Athenians were defeated in battle, because their commander was not present.

12 Translate into English:

Τὸν δ' ἀπαμειβόμενος προσέφη πόδας ὠκὺς Ἀχιλλεύς·
Ἔσται ταῦτα, Σκάμανδρ' εὖ διοτρεφέες, ὡς σὺ κελεύεις.

Τρῶας δ' οὐ πρὶν λήξω ὑπερφιάλους ἐναρίζων,

πρὶν ἔλσαι κατὰ ἄστυ καὶ Ἑκτορι πευρηθῆναι

ἀντιβίην, ἣ κέν με δαμάσσεται ἢ κεν ἐγὼ τόν. —Homer, Iliad, 21, 222–226

ὑπερφιάλος=insolent, ἐναρίζω=slay, ἀντιβίην=against

13 Translate into English:

Εἰσιόντες οὖν καταλαμβάνομεν τὸν μὲν Σωκράτη ἄρτι λελυμένον, τὴν δὲ Ξανθίππην ἔχουσάν τε τὸ παιδίον αὐτοῦ καὶ παρακαθημένην. ὡς οὖν εἶδεν ἡμᾶς ἡ Ξανθίππη, ἀνεψήμησε. καὶ ὁ Σωκράτης βλέψας εἰς τὸν Κρίτωνα· Ὡ Κρίτων, ἔφη, ἀπαγέτω τις αὐτὴν οἶκαδε. —Plato, Phaedo, 3

ἄρτι=just, ἀνεψημέω=cry aloud, βλέπω=look

14 Give an account of two of the following: the Trojan War, life of Socrates, Xenophon as a general, battle of Aegospotami and its results.

15 Write and translate Greek sentences illustrating the following: dative of accompaniment, infinitive depending on an adjective, conditional relative of the contrary to fact form, cognate accusative, participle expressing purpose.

University of the State of New York
High School Department

178TH EXAMINATION

GREEK—Third Year

Thursday, June 18, 1903—1.15 to 4.15 p. m., only

Answer the first seven questions and three of the others but no more. If more than three of the others are answered only the first three answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a ATHENA PROCURES A SHIP

- 1 Ἐνθ' αὐτ' ἄλλ' ἐνόησε θεά, γλαυκῶπις Ἀθήνη.
- 2 Τηλεμάχῳ ἐκυῖα κατὰ πτόλιν ψχετο πάντῃ,
- 3 καὶ ῥα ἐκάστῳ φωτὶ παρισταμένη φάτο μῦθον,
- 4 ἐσπερίου δ' ἐπὶ νῆα θοὴν ἀγέρεσθαι ἀνώγειν.
- 5 ἥ δ' αὖτε Φρονόιο Νοήμονα φαίδιμον υἱὸν
- 6 ἦττε νῆα θοήν· ὁ δὲ οἱ πρόφρων ὑπέδεκτο.
- 7 δῶσετό τ' ἥλιος σκιδώοντό τε πᾶσαι ἀγναιί,
- 8 καὶ τότε νῆα θοὴν ἄλαδ' αἶρυσε, πάντα δ' ἐν αὐτῇ
- 9 ὅπλ' ἐτίθει, τὰ τε νῆες εὐσσελμοι φορέουσιν.

— Homer, *Odyssey* 2, 382-390

ἐσπέριος = in the evening, ὑποδέχομαι = promise, σκιάω = over-shadow, ἀγναί = way

b THE PROPHECY OF THE SEER IS FULFILLED

- 1 Καὶ γὰρ ὁ μάντις παρήγγελλεν αὐτοῖς μὴ πρότερον ἐπιτίθεσθαι, πρὶν
- 2 τῶν σφετέρων ἢ πῶσοι τις ἢ τρωθείη· Ἐπειδὰν μέντοι τοῦτο γένηται,
- 3 ἡγησόμεθα μὲν, ἔφη, ἡμεῖς, νίκη δ' ὑμῖν ἔσται ἐπομόνοις, ἐμοὶ μέντοι
- 4 θάνατος, ὥς γέ μοι δοκεῖ. καὶ οὐκ ἐψεύσατο, ἀλλ' ἐπεὶ ἀνέλαβον τὰ ὅπλα,
- 5 αὐτὸς μὲν ὥσπερ ὑπὸ μοίρας τινὸς ἀγόμενος ἐκπηδήσας πρῶτος, ἐμπεσὼν
- 6 τοῖς πολεμίοις ἀποθνήσκει, καὶ τίθαπται ἐν τῇ διαβάσει τοῦ Κηφισοῦ·
- 7 οἱ δ' ἄλλοι ἐνίκων καὶ κατεδίωξαν μέχρι τοῦ ὀμαλοῦ.

— Xenophon, *Hellenica*, 2, 4

μοῖρα = fate, ἐκπηδάω = leap forth, τὸ ὀμαλόν = level ground

c SOCRATES CONVERSES WITH EUTHYDEMUS

- 1 Κατ' ἀρχὰς μὲν οὖν, ἀκούοντος Εὐθύδημου, τοιοῦτους λόγους ἔλεγε Σω-
- 2 κράτης· ὥς δ' ἦσθετο αὐτὸν ἐτοιμότερον ὑπομένοντα, ὅτε διαλέγοιτο, καὶ
- 3 προθυμότερον ἀκούοντα, μόνος ἦλθεν εἰς τὸ ἡνιοποιεῖον, παρακαθεζομένου
- 4 δ' αὐτῷ τοῦ Εὐθύδημου· Εἰπέ μοι, ἔφη, ὦ Εὐθύδημ, τῷ ὄντι, ὥσπερ
- 5 ἐγὼ ἀκούω, πολλὰ γράμματα συνήχας σοφῶν ἀνδρῶν; καὶ ὁ Εὐθύδημος·
- 6 Νῆ τὸν Δί', ἔφη, ὦ Σώκρατες· καὶ ἔτι γε συνάγω, ἕως ἂν κτήσωμαι ὥς ἂν
- 7 δύνωμαι πλεῖστα. Νῆ τὴν Ἥραν, ἔφη ὁ Σωκράτης, ἀγαμαὶ γέ σου, διότι
- 8 οὐκ ἀργυρίου καὶ χρυσίου προείλον θησαυροὺς κεκτῆσθαι μᾶλλον ἢ σοφίας·
- 9 δῆλον γὰρ ὅτι νομίζεις ἀργύριον καὶ χρυσίον οὐδὲν βελτίους ποιᾶν τοῖς
- 10 ἀνθρώποις. — Xenophon, *Memorabilia*, 4, 2

ἡνιοποιεῖον = saddler's shop, ἀγαμαί = admire, θησαυρός = treasure

6 Translate into Greek: (a) Even if you should possess much gold and silver, it could not make you a better man, (b) Athena ordered them to put all their arms on board the ships before sunset, (c) He says that if we attack the enemy, we shall gain the victory.

7 Translate into Greek: Socrates, when he thought that Euthydemus was eager to converse, came and sat down beside him. Euthydemus told Socrates that he was collecting as many books as he could, since he preferred wisdom to gold.

8 Give the reason for the case of νῆα (a, 6), σφετέρων (b, 2), ἔμοι (b, 3), πολεμίους (b, 6), Κηφισοῦ (b, 6), Εὐθυδήμου (c, 4); for the mode of ἐπιτίθεσθαι (b, 1), πέσοι (b, 2), γένηται (b, 2), ποιείν (c, 9).

9 Translate into English:

Τῇ δὲ ὑστεραίᾳ ξυνέλεξαν οἱ στρατηγοὶ τοὺς στρατιώτας. καὶ ἐδόκει αὐτοῖς περὶ τῆς λοιπῆς πορείας παρακαλέσαντας τοὺς Σινωπέας βουλευέσθαι. εἴτε γὰρ πέζῃ δέοι πορεύεσθαι, χρήσιμοι ἂν ἐδόκουν εἶναι οἱ Σινωπεῖς· ἔμπειροι γὰρ ἦσαν τῆς Παφλαγονίας· εἴτε κατὰ θάλατταν, προσδεῖν ἐδόκει Σινωπέων.

—Xenophon, Anabasis, 5, 6

προσδεῖ=is still need of

10 Translate into English:

Ἐπεὶ δὲ πορευόμενος καθέωρα τὴν τῶν Βαβυλωνίων πόλιν καὶ ἔδοξεν αὐτῷ ἡ ὁδὸς ἣν ἦε παρ' αὐτὸ τὸ τεῖχος φέρειν, καλέσας τὸν Γωβρύαν ἠρώτα εἰ εἴη ἄλλη ὁδὸς, ὥστε μὴ πάντῃ ἐγγὺς τοῦ τείχους ἄγειν. καὶ ὁ Γωβρύας εἶπεν, Εἰσὶ μὲν, ὧ δέσποτα, καὶ πολλαὶ ὁδοί.—Xenophon, Cyropaedia, 5, 4

11 Translate into Greek: (a) They burned the bridge so that we were unable to cross the river, (b) Ambassadors came from many nations to say that they would be our friends, (c) Let us find a guide who is acquainted with the country through which we wish to go.

12 Translate into English:

Ὡς φάτο, μείδῃσεν δὲ πατὴρ ἀνδρῶν τε θεῶν τε.
καὶ ῥα καλεσόμενος προσέφη χρυσέην Ἀφροδίτην.

Οὐ τοι, τέκνον ἐμόν, δέδοται πολεμῆμα ἔργα,
ἀλλὰ σύ γ' ἡμερόεντα μετέρχεο ἔργα γάμοιο,

ταῦτα δ' Ἄρκη θεῶν καὶ Ἀθήνη πάντα αὐλήσει.—Homer, Iliad, 5, 426-430

μειδάω=smile, ἡμερόεις=attractive, μετέρχομαι=attend to

13 Translate into English:

Τούτου τοῦ ἥρος καὶ ὁ Γύλιππος ἦκεν εἰς τὰς Συρακούσας, ἄγων ἀπὸ τῶν πόλεων ὧν ἔπεισε στρατιᾶν ὅσῃν ἐκασταχόθεν πλείστην ἐδύνατο. καὶ ἐγκαλέσας τοὺς Συρακοσίους ἔφη χρήναι πληροῦν ναῦς ὡς δύνανται πλείστας καὶ ναυμαχίας ἀπόπειραν λαμβάνειν.

—Thucydides, Peloponnesian War, 7, 21

ἥρ=spring, ἀποπείραν λαμβάνω=make trial of

14 Give an account of *two* of the following: life of Cyrus, Hector, the career of Lysander, the Sicilian expedition.

15 Write and translate Greek sentences illustrating *three* of the following: accusative absolute, genitive with adjectives, relative clause of purpose, verbal adjective in -τός.

GREEK PROSE COMPOSITION

Wednesday, January 28, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

Translate into Greek:

1 We must go by the shortest road and march as swiftly as possible.

2 The citizens are afraid that Xenophon will lead his soldiers into the city and permit them to plunder.

3 Clearchus would come to Cyrus on the same day, if Cyrus should summon him.

4 When the general saw that the enemy's horsemen were fleeing, he ordered his own horsemen to pursue.

5 Always obey your rulers and never do anything contrary to the laws of your country.

6-7 Menon, before it is plain what the other soldiers intend to do, brings together his own soldiers apart from the rest and says: "Men, if you do what I bid you, you will be honored by Cyrus more than all his other soldiers."

8-9 Since Agesilaus was very powerful, ambassadors were sent to him from many nations. Many cities, also, in order that they might have freedom, revolted to him, so that Agesilaus was no longer a leader merely of the Greeks, but also of many of the barbarians.

10-12 If the Greeks had known that Cyrus was dead, they would have ceased fighting at once. But they supposed that he was pursuing the fleeing enemy. However, when he did not appear and no messenger came from him, they decided to go back to camp. When they reached there they found that the barbarians had carried off all their provisions. Accordingly most of the Greeks were without supper that night.

13-15 Ten men were chosen by the Athenians to go on an embassy to Sparta. Ambassadors came also from the other cities of Greece for the purpose of deliberating with the Spartans in regard to Athens. Some of them desired to destroy Athens utterly, but the Spartans refused to destroy a city which had assisted Greece in her greatest dangers. The Spartans declared that they would make peace with the Athenians, if the latter were willing to tear down the long walls of the city.

apart = χωρίς, nation = ἔθνος, freedom = ἐλευθερία, carry off = δαρπάζω, without supper = ἄδηνος, go on an embassy = πρεσβεῖν, destroy = ἐξαιρέω, utterly = παντελῶς, tear down = καθαιρεῖν

High School Department

178TH EXAMINATION

GREEK PROSE COMPOSITION

Wednesday, June 17, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

Translate into Greek:

1 Always do what is right both in small and in great things.
2 Let us remain in the city five days till the messengers from the king arrive.

3 Fellow soldiers, do not be cowardly, for if you are, you will be defeated.

4 The philosopher who said, "Know thyself," was called one of the seven wise men of Greece.

5 If they had returned to camp immediately they could have assisted those whom they had left there as guards.

6-7 When the Lacedaemonian admiral came to Cyrus and asked him for pay for the sailors, Cyrus said that he would answer him after a few days. The admiral was so enraged that he sailed away immediately and sent ships to Sparta for money and supplies.

8-9 The soldiers with Cyrus refused to go forward, for they suspected that they were going against the king. Clearchus at first tried to force his own soldiers to go and barely escaped being killed by them. Then he called them together and made a speech which his own men and all who heard it applauded.

10-12 Certain men came from the villages to Xenophon and ordered him to lead his army away. Xenophon answered them as follows: "Before we became your friends you did not hinder us from marching through your country, and whenever you came to us you encamped beside us and did not fear that any one would attack you. But after you became our friends you tried to drive us out from this land which you obtained through us."

13-15 Agesilaus, because he knew that it might be necessary to fight at any time, led his army drawn up in order so that his soldiers were always prepared for battle. He also marched quietly and swiftly in order that he might come upon the enemy before any one learned that he was near. On this account the enemy greatly feared him, and all his friends and allies trusted him.

cowardly = *κακός*, philosopher = *φιλόσοφος*, admiral = *ναύαρχος*, be enraged = *δριγίζομαι*, forward = *τοῦ πρόσω*, escape = *ἐκφεύγω*, drive out = *ἐξελάνω*, quietly = *ἡσυχως*

High School Department

175TH EXAMINATION

LATIN—First Year

Tuesday, September 23, 1902—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more, including at least one translation into English and one translation into Latin. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Indicate the accent and the gender of *nominis*, *adventus*, *tempus*, *magister*, *nautarum*, *exercitum*, *voluptas*, *Carthago* (a town in Africa), *quercui* (oak-tree); the accent of *integrum*, *magnaque*.

2 Decline *puer*, *pecunia*, *manus*, in the singular; *res*, *vox*, in the plural.

3 Translate into English:

Hostes impetum nostrorum *militum ferre* non potuerunt et fugerunt. Romani, cum multos *occidissent*, se in castra receperunt. Eodem *die* legati ab hostibus missi sunt ad Caesarem qui pacem *peterent*.

me recipio=withdraw

4 Give the reason for the case of *militum*, *die*; for the mode of *ferre*, *occidissent*, *peterent*.

5 Translate into Latin:

a These men came home on the third day.

b On account of our attack their soldiers fled.

c Caesar sent men from his camp.

d The Romans were killed with swords.

e Why do you carry these letters to the ambassadors?

6 Decline the following in the singular: *breve colloquium*, *gravissimus labor suus*.

7 Translate into English:

Nemo Thrasybulum virtute atque amore patriae superavit. Nam a triginta tyrannis patriam *liberavit*. Cum hi tyranni imperium Athenarum tenerent et multos cives *interfecissent*, Thrasybulus non solum primus sed etiam fere solus eos oppugnavit.

Thrasybulus=Thrasybulus, *amor*=love, *tyrannus*=tyrant

8 Conjugate *liberavit* in the future indicative active, in the present subjunctive active; *interfecissent* in the imperfect indicative active, in the perfect indicative passive.

9 Write the principal parts of *proficiscor*, *pugno*, *eo*, *iubeo*, *confero*.

10 Translate into Latin:

a Let us go to Rome.

b He began to help his brother.

c They will fight well because the leader is here.

d He was with his father, a tall man.

e I shall use your forces.

11 Compare *similis*, *magnus*, *celeriter*, *bene*, *fortiter*.

12 Translate into English:

Postquam Ancus Marcius mortuus est, Priscus Tarquinius regnum accepit. Hic numerum senatorum duplicavit et cloacam maximam Romae aedificavit, qui ad nostram memoriam manet. Vicit quoque Sabinos et adiunxit eorum agros finibus Romae.

duplico = double, *cloaca* = sewer, *aedifico* = build, *Sabini* = Sabines, *adiungo* = annex

13 Conjugate *praesum* in the future indicative, in the perfect indicative, in the imperfect subjunctive, in the perfect subjunctive.

14 Decline *qui* in the singular in all genders, *senex* (old man) in both singular and plural.

15 Write original Latin sentences illustrating *three* of the following: (*a*) ablative of place where, (*b*) ablative of manner, (*c*) ablative of agent, (*d*) accusative of duration of time, (*e*) dative with a compound verb.

High School Department

176TH EXAMINATION

LATIN—First Year

Tuesday, January 27, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more, including at least one translation into English and one translation into Latin. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Select *five* of the following terminations of the nominative singular of nouns and mention the gender commonly indicated by each: *es* increasing in the genitive, *er*, *as*, *u*, *x*, *os*, *l*, *ar*. Give an example of a noun having each termination selected.

2 Decline *consilium*, *dies*, *vulnus*, in the singular; *pes*, *passus*, in the plural.

3 Translate into English:

Proximo *die* Caesar e castris copias suas eduxit aciemque instruxit et *hostibus* potestatem pugnandi fecit. Cum Caesar exercitum in castra *reduxisset*, Ariovistus partem suarum *copiarum*, quae castra minora *oppugnaret*, misit.

potestas=opportunity

4 Give the reason for the case of *die*, *hostibus*, *copiarum*; for the mode of *reduxisset*, *oppugnaret*.

5 Write the principal parts of *nolo*, *audio*, *capio*, *doceo*, *impero*.

6 Translate into Latin:

a The sword is so large that I can not carry it.

b Caesar followed the enemy with a great number of foot-soldiers.

c The citizens were terrified by the barbarians.

d Get the ships ready so that we may set out.

e Let us love our fatherland.

7 Translate into English:

Post hoc proelium Lacedaemonii cum Atheniensibus acriter bellum gesserunt. Cum Lacedaemonii una pugna decem milia hostium *interfecissent*, Agesilaus, dux Lacedaemoniorum, non laetus fuit. Nam si tantam multitudinem hominum habuisset, Persas *vicisset*.

Atheniensis=an Athenian, *Persae*=Persians

8 Conjugate *interfecissent* in the present indicative active, the imperfect subjunctive active; *vicisset* in the future indicative active, the pluperfect indicative passive.

9 Decline the following in the singular: *decima legio, hoc unum verbum*.

10 Translate into Latin:

a A thousand horsemen were killed in that war.

b When Agesilaus was leader the soldiers were glad.

c He says that there will not be a battle.

d We must conquer them.

e They are at Athens.

11 Compare *fortis, bonus, multus, ingens*. Form an adverb from *fortis, bonus*.

12 Translate into English:

a Erant itinera duo quibus domo exire possent.

b Ubi ea dies venit, legati ad eum reverterunt.

c Ipse cum suis copiis eos sequi coepit.

d Vidit autem in magno periculo se esse.

e In omnibus rebus animo magno fuit.

13 Write the first person plural of each of the tenses of the indicative and subjunctive of *eo*.

14 Decline *idem* in the singular in all genders; *vis* in both singular and plural.

15 Give a rule for *each* of the following: (*a*) degree (measure) of difference, (*b*) duration of time, (*c*) cause, (*d*) agent, (*e*) a noun following a comparative with *quam* omitted.

University of the State of New York
High School Department

177TH EXAMINATION

LATIN—First Year

Friday, March 27, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more, including at least one translation into English and one translation into Latin. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Indicate the accent and the gender of *each* of the following: *legiones, agricolis, corpora, auctoritatis, amicitiam, agrorum, itineri, partium, fluminibus, princeps.*

2 Decline *dux, bellum*, in the singular; *mos, insula, ignis*, in the plural.

3 Translate into English:

Helvetii cum omnibus copiis e finibus suis *exire* et per provinciam nostram iter facere constituerunt. Cum id *Caesari nuntiatum esset*, ab urbe profectus est, et magnis *itineribus* in Galliam contendit. Legati nobilissimi *civitatis* ad eum ab Helvetiis missi sunt.

constituo=decide, *contendo*=hasten, *nobilis*=noble

4 Give the reason for the case of *Caesari, itineribus, civitatis*; for the mode of *exire, nuntiatum esset*.

5 Translate into Latin:

a We are about to depart from the state.

b Let us go into the territories of the Helvetians.

c Have you announced this thing to him?

d They say that they will send ambassadors to Caesar.

e We shall march through their province.

6 Write the principal parts of *fero, supero, maneo, pono, venio*.

7 Decline the following in the singular: *filius sapiens, urbs parva*, the neuter of *ipse*.

8 Translate into English:

Chabrias multa bella gessit, cum esset dux Atheniensium. In Cyprum venit et totam insulam bello vicit. Interea bello exorto inter Aegyptios et Persas, Chabrias classi Aegyptiorum praefuit. Sed Athenienses imperaverunt ut domum statim rediret.

Chabrias = Chabrias, *Atheniensis* = an Athenian, *exorior* = begin, *Aegyptius* = an Egyptian, *Persae* = Persians

9 Conjugate *volo* (wish) in the future indicative, in the present subjunctive; *appello* (call) in the perfect indicative active, in the present imperative active.

10 Compare *clarus*, *magnus*, *celer*. Form an adverb from *certus*. Form and compare an adverb from *similis*.

11 Decline *certior* in the singular, all genders; *ego* in the singular; *brevis* in the plural, all genders.

12 Translate into Latin:

a He was my friend many years.

b The river is so deep that we are not able to cross.

c These men have come to seek peace.

d I received your letter on the same day.

e Who is braver than a Roman soldier?

13 Write the second person singular of *each* of the tenses of the indicative passive of *mitto*; the third person plural of *each* of the tenses of the subjunctive active of *video*.

14 Translate into English:

a Diem dicunt, qua die in unum locum conveniant.

b Pace facta Caesar exercitum suum reduxit.

c Oppidum muro muniri iussit.

d Vidit hunc locum ad pugnandum idoneum esse.

e Timebant ne Romani suos fines vastarent.

15 Write original Latin sentences illustrating *three* of the following: dative of possession, accusative of extent of space, dative with adjectives, negative clause of purpose, ablative of quality (descriptive ablative).

University of the State of New York

High School Department

178TH EXAMINATION

LATIN—First Year

Tuesday, June 16, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more, including at least one translation into English and one translation into Latin. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Indicate the gender of each of four of the following nouns, giving the rule in each case: *nihil, spes, Rhenus, virtus, vulnus, magnitudo, mos, celeritas*.

2 Decline *oppidum; acies, caput*, in the singular; *nox, copia*, in the plural.

3 Translate into English:

Caesar, cum in omnibus partibus Galliae bellum gessisset, cum duabus legionibus per Aquitaniam iter fecit. Statim omnes civitates Aquitaniae legatos ad eum miserunt obsidesque ei dederunt. His rebus gestis ipse Narbonem profectus est et exercitum in hiberna duxit.

Narbo = Narbo (town in Gaul)

4 Give the reason for the case of *Galliae, ei, rebus, Narbonem*; for the mode of *gessisset*.

5 Translate into Latin:

a He said that the Roman army was in Aquitania.

b Ambassadors were sent by all the states of Gaul.

c He is about to set out from this city to see Caesar.

d Lead to Rome the two legions that you have with you.

e Hostages must be given by the Gauls.

6 Write the principal parts of *ago, sequor, fugio, libero, contineo*.

7 Translate into English:

Hannibal omnes gentes Hispaniae bello superavit. Postea Pyrenaeos montes cum suis copiis transiit, et per Galliam properavit et ad Alpes venit, quas nemo cum exercitu ante eum transierat. Hos montes copias suas traduxit et in Italiam venit.

gens=nation, *Hispania*=Spain, *Pyrenaeus*=Pyrenean, *tra-duco*=lead across

8 Conjugate *superavit* in the future indicative active, in the imperfect subjunctive passive; *venit* in the imperfect indicative active, in the pluperfect subjunctive active.

9 Decline the following in the singular: *ille* in all genders, *rex noster*.

10 Compare *malus*, *miser*, *certus*. Form an adverb from *acer*. Form and compare an adverb from *carus*.

11 Decline *tu* in singular and plural; *omnis* in the plural, all genders; the gerund of *amo*.

12 Translate into Latin:

a My country is dearer to me than life.

b If you are our leader, we shall conquer.

c Let us defend the name of the Roman people.

d I am afraid that I can not come.

e Is there any place on this mountain suitable for a camp?

13 Write the third person plural of *each* of the tenses of the indicative passive of *occupo*; the second person singular of *each* of the tenses of the subjunctive active of *fero*.

14 Translate into English:

a Hic ita vixit ut omnibus civibus esset carissimus.

b Ei qui celeriter arma capere potuerunt, nostros adorti sunt.

c Caesar milites cohortatus est ut fortiter pugnarent.

d Fratrem interfecto, Romulus imperio potitus est.

e Amice, noli id facere.

15 Define and illustrate by a Latin word *each* of the following: ordinal numeral, reflexive pronoun, transitive verb, indefinite pronoun, locative case.

CAESAR'S COMMENTARIES

Thursday, September 25, 1902—9.15 a. m. to 12.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a ARIOVISTUS ATTACKS THE SMALLER CAMP OF CAESAR

Proximo die *instituto* suo Caesar e castris utrisque copias suas eduxit paulumque a maioribus castris *progressus* aciem instruxit, hostibus pugnandi potestatem fecit. Ubi ne tum quidem eos *prodire* intellexit, circiter meridiem exercitum in castra reduxit. Tum demum Ariovistus partem suarum *copiarum*, quae castra *minora oppugnaret*, misit. *Acrius* utrimque usque ad vesperum pugnatum est. *Solis* occasu suas copias Ariovistus multis et illatis et *acceptis vulneribus* in castra reduxit.—1, 50

b CAESAR RALLIES HIS FORCES AND ORDERS AN ADVANCE

Cuius *adventu* spe illata *militibus* ac redintegrato animo, cum pro se quisque in conspectu imperatoris etiam in *extremis* suis rebus operam navare cuperet, paulum hostium impetus tardatus est.

Caesar cum septimam *legionem*, quae iuxta *constiterat*, item urgeri ab hoste *vidisset*, tribunos militum monuit, ut paulatim sese legiones *coniungerent* et conversa *signa* in hostis inferrent. Quo facto cum *alius* alii subsidium ferret, neque *timerent*, ne aversi ab hoste *circumvenirentur*, audacius resistere ac fortius *pugnare* coeperunt.—2, 25-26

c CRASSUS SURPRISES THE ENEMY

Crassus equitum praefectos cohortatus, ut *magnis* praemiis pollicitationibusque suos excitarent, quid fieri *velit*, ostendit. Illi, ut erat imperatum, eductis iis cohortibus, quae *praesidio* castris relictæ *intritæ* ab labore erant, et *longiore itinere* circumductis, ne ex *hostium* castris conspici possent, omnium *oculis* mentibusque ad pugnam intentis celeriter ad eas, quas *diximus*, munitiones pervenerunt atque his prorutis prius in hostium castris constiterunt, quam plane ab his videri aut, quid rei gereretur, cognosci *posset*.—3, 26

6 Translate into Latin [Do not use rare or poetic constructions]:

a Ariovistus is about to storm the smaller camp of Caesar.

b He came to the seventh legion for the purpose of encouraging the soldiers.

c Were not our horsemen surrounded by the enemy?

7 Translate into Latin [Do not use rare or poetic constructions]:

a It is said that our soldiers fought more spiritedly when the arrival of Caesar was known.

b The attack of the enemy was so delayed that we were able to unite our legions.

8 Give the reason for the case of *die*, *copiarum* (*a*), *adventu*, *legionem* (*b*), *praesidio* (*c*); for the mode of *oppugnaret* (*a*), *vidisset*, *pugnare* (*b*), *velit*, *posset* (*c*).

9 Write the principal parts of *progressus*, *acceptis* (*a*), *coniungerent*, *timerent* (*b*), *velit* (*c*).

10 Decline the following in the singular: *vulneribus* (*a*), the masculine and neuter of *alius* (*b*), *itinere* (*c*); the following in the plural: *castra minora* (*a*), *adventu*, the masculine and feminine of *quae* (*b*), *oculis* (*c*).

11 Give the reason for the case of *instituto*, *vulneribus* (*a*), *militibus* (*b*), *intritae*, *hostium* (*c*, line 5); for the mode of *prodire* (*a*), *circumvenirentur* (*b*). Compare *acriter* (*a*), *extremis* (*b*), *longiore* (*c*).

12 Translate into English:

Ariovistus ad Caesarem legatos mittit: *velle se* de his rebus, *quae* inter eos agi coeptae essent, *agere cum eo*.

Write *velle se . . . cum eo* in direct discourse.

13 Write an account of Caesar's *Commentaries on the Gallic War*, touching on (*a*) purpose, (*b*) historic value, (*c*) literary merits.

14 Write the second person singular of *each* of the tenses of the indicative and subjunctive, active and passive, of *diximus* (*c*).

15 Give, with meaning of prefix and stem, the composition of *progressus* (*a*), *constiterat* (*b*), *praesidio* (*c*). Give an English word containing the stem of *solis* (*a*), *signa* (*b*), *magnis*, *oculis* (*c*).

CAESAR'S COMMENTARIES

Tuesday, January 27, 1903—1.15 to 4.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a

THE REPORT OF CONSIDIUS

P. Considius, *qui rei militaris peritissimus habebatur* et in exercitu L. Sullae et postea in M. Crassi fuerat, cum exploratoribus praemittitur.

Prima luce, cum summus mons a Labieno *teneretur*, ipse ab *hostium* castris non *longius* mille et quingentis *passibus* abesset, neque, ut postea ex captivis comperit, aut ipsius adventus aut Labieni cognitus esset, Considius *equo* admisso ad eum accurrit, *dicit*, *montem*, quem a Labieno *occupari* voluerit, ab hostibus teneri: id se a Gallicis armis atque insignibus *cognovisse*.

—1, 21-22

b

THE DISTRIBUTION OF CAESAR'S FORCES

Publium *Crassum* cum cohortibus legionariis duodecim et *magno* numero equitatus in Aquitaniam proficisci iubet, ne ex *his nationibus* auxilia in Galliam *mittantur* ac tantae nationes coniungantur. Quintum Titurium Sabinum *legatum* cum legionibus *tribus* in Venellós, Curiosolites Lexobiosque mittit, qui *eam manum distinendam curet*. Decimum Brutum adulescentem *classi* Gallicisque navibus, quas ex Pictonibus et Santonis reliquisque pacatis regionibus convenire iusserat, *praeficit* et, cum primum posset, in Venetos proficisci iubet.—3, 11

c

THE INQUISITIVENESS OF THE GAULS

Est autem hoc Gallicae consuetudinis, uti et viatores etiam invitos consistere cogant et, quid quisque *eorum* de quaque re *audierit* aut cognoverit, quaerant, et mercatores in oppidis vulgus circumstiat, quibusque ex regionibus veniant quasque ibi *res* cognoverint, pronuntiare *cogant*. His *rebus* atque auditionibus *permoti* de summis saepe rebus consilia *ineunt*, *quorum* eos in vestigio *paenitere* necesse est, cum *incertis rumoribus* serviant et plerique ad voluntatem eorum *ficta* respondeant.

—4, 5

6 Translate into Latin [Do not use rare or poetic constructions]:

(a) *Considius* was sent forward to ascertain the number of the enemy, (b) When the greatest part of Aquitania had been subdued by Crassus, he set out for Caesar's army, (c) Are the Gauls influenced by the reports of travelers?

7 Translate into Latin [Do not use rare or poetic constructions]:

(a) Caesar ordered Labienus to hold the summit of the mountain, (b) He says that Caesar placed Crassus over the cohorts that were sent among the Aquitani, (c) It will be necessary to keep the Gallic forces apart.

8 Give the reason for the case of *rei*, *passibus* (a), *legatum* (b), *eorum* (c, line 2), *rumoribus* (c); for the mode of *teneretur*, *occupari* (a), *curet* (b), *audierit* (c), *cogant* (c, line 5).

9 Write the principal parts of *teneretur* (a), *curet*, *praeficit* (b), *cogant*, *ineunt* (c).

10 Give the reason for the case of *luce*, *hostium*, *equo* (a), *Crassum*, *classi* (b), *rebus* (c, line 5), *quorum* (c); for the mode of *mittantur* (b), *paenitere* (c). Explain the force of the tense of *dicit* (a).

11 Write in direct discourse *montem . . . cognovisse* (a).

12 Draw an outline map of Gaul, showing, with name, the location of each of *five* of the following: the Aquitani, the Nervii, the Pictones, the Santones, the Veneti, the Jura mountains, the Garonne river, the Rhine river.

13 Decline the following in the singular: *qui* (a) in the masculine, *prima luce* (a), *eam manum* (b); the following in the plural: *his nationibus* (b), *res* (c). Compare *longius* (a), *magno* (b).

14 Select from questions 1-5 a predicate adjective, an accusative of limit (end) of motion, an impersonal verb. Account for the number of *cogant* (c, line 5). Conjugate *audierit* (c) in the future indicative active, in the imperfect subjunctive passive, in the perfect indicative passive.

15 Give, with meaning of prefix and stem, the derivation or composition of *distinendam* (b), *permoti*, *incertis* (c). Mention an English word containing the stem of *prima* (a), *tribus*, *manum* (b), *ficta* (c).

CAESAR'S COMMENTARIES

Friday, March 27, 1903—1.15 to 4.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a CAESAR ADDRESSES THE REMI AND DIVITIACUS

Caesar Remos *cohortatus* liberaliterque oratione prosecutus omnem senatum ad se *convenire principumque liberos* obsides ad se adduci *iussit*. Quae omnia ab his diligenter ad diem facta sunt. Ipse Divitiacum Aeduum magno opere cohortatus *docet*, quanto opere rei publicae communisque *salutis intersit* manus hostium *distineri*, ne cum *tanta multitudine uno tempore configendum sit*; id fieri posse, si suas copias Aedui in fines *Bellovacorum introduxerint* et eorum agros *populari* coeperint. His mandatis eum ab se *dimittit*.—2, 5

b THE VENETI SURRENDER

Quo proelio bellum Venetorum totiusque orae maritimae confectum est. Nam cum omnis iuventus, omnes etiam *gravioris aetatis*, in quibus aliquid *consilii* aut *dignitatis* fuit, eo convenerant, tum, *navium* quod ubique fuerat, unum in locum coegerant; quibus amissis reliqui neque, quo se reciperent, neque, quem ad modum oppida defenderent, habebant. Itaque se suaque omnia *Caesari dediderunt*. In quos eo gravius Caesar vindicandum statuit, quo diligentius in reliquum tempus a barbaris ius legatorum *conservaretur*.—3, 16

c A FORAGING PARTY IS SENT OUT

Itaque, cum summo *studio* a militibus administraretur, duodecim navibus *amissis*, reliquis ut navigari *commode* posset, *effecit*.

Dum ea geruntur, *legione* ex consuetudine una frumentatum missa, quae appellabatur *septima*, neque *ulla* ad id tempus belli suspicione interposita, cum pars hominum in agris *remaneret*, pars etiam in castra ventitaret, *ii*, qui pro *portis* castrorum in statione erant, Caesari *nuntiaverunt*, *pulverem maiorem*, quam consuetudo ferret, in ea parte videri, quam in partem legio iter *fecisset*.—4, 31-32

6 Translate into Latin [Do not use rare or poetic constructions]:

a The forces of the Belgians must be kept apart.

b He ordered the Aedui to lead their army against the Bellovaci.

c There is so great a multitude of the enemy that he can not defend himself.

7 Translate into Latin [Do not use rare or poetic constructions]:

a The Veneti, having lost all their ships, are willing to surrender.

b Caesar is about to cross into Britain.

c Part of the cavalry was sent by Caesar for the purpose of laying waste the fields of the Veneti.

8 Give the reason for the case of *oratione*, *senatum*, *Bellovacorum* (*a*), *consilii* (*b*), *legione* (*c*); for the mode of *intersit*, *configendum sit*, *introduxerint*, *populari* (*a*), *remaneret* (*c*).

9 Write the principal parts of *cohortatus*, *convenire* (*a*), *dediderunt* (*b*), *amissis*, *nuntiaverunt* (*c*).

10 Write in direct discourse *pulverem maiorem . . . fecisset* (*c*).

11 Give the reason for the case of *salutis*, *tempore* (*a*), *aetatis*, *Caesari* (*b*), *studio*, *septima* (*c*); for the mode of *distineri* (*a*), *conservaretur* (*b*). Compare *gravioris* (*b*), *commode* (*c*).

12 Describe the naval battle between the Romans and the Veneti, touching on the construction of the ships and on the naval tactics of each.

13 Decline the following in the singular: *tanta multitudo* (*a*), *gravioris aetatis* (*b*), *ulla* (*c*) in the masculine; the following in the plural: *principum*, *liberos* (*a*), *consilii* (*b*), *ii* (*c*) in the feminine, *portis* (*c*).

14 Select from questions 1–5 an ablative of accompaniment, a noun in apposition, an ablative of agent, an ablative of place where, a supine in *um*, an iterative (frequentative) verb. Write the second person singular of *each* of the tenses of the subjunctive, active and passive, of *iussit* (*a*).

15 Give the derivation or composition of *each* of the following and show how the meaning of each is derived: *dimittit* (*a*), *dignitatis* (*b*), *effecit* (*c*). Give an English word containing the stem of *docet*, *populari* (*a*), *navium* (*b*), *pulverem* (*c*).

CAESAR'S COMMENTARIES

Tuesday, June 16, 1903—1.15 to 4.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a CAESAR TURNS TOWARD BIBRACTE TO GET SUPPLIES

Eo die, quo consuerat *intervallo*, hostes sequitur et milia passuum tria ab eorum castris castra ponit. Postridie eius *diei*, quod omnino biduum supererat, cum *exercitui* frumentum *metiri* oporteret, et quod a Bibracte, oppido Aeduorum longe maximo et copiosissimo, non *amplius milibus* passuum duodeviginti aberat, *rei* frumentariae prospiciendum *existimavit*: iter ab Helvetiis avertit ac Bibracte ire contendit. Ea res per fugitivos L. Aemilii, decurionis equitum Gallorum, hostibus nuntiatur.—1, 22-23

b THE BELLOVACI SURRENDER

Qui cum se suaque *omnia* in oppidum Bratuspantium *contulissent*, atque ab eo oppido Caesar cum exercitu circiter *milia passuum* quinque abesset, omnes maiores *natu* ex oppido *egressi* manus ad Caesarem tendere et voce *significare* coeperunt, sese in *eius* fidem ac potestatem *venire* neque contra populum Romanum armis contendere. Item, cum ad oppidum *accessisset* castraque ibi poneret, pueri mulieresque ex *muro* passis *manibus* suo more pacem ab Romanis petierunt.—2, 13

c THE GAULS DECIDE TO ATTACK SABINUS

Quod ubi *auditum* est, conclamant omnes, occasionem *negotii* bene *gerendi* amittendam non esse, ad castra iri oportere. Multae res ad hoc consilium Gallos hortabantur: *superiorum* dierum Sabini *cunctatio*, perfugae confirmatio, inopia cibarium, cui rei *parum* diligenter ab iis erat *provisum*, spes Venetici belli, et quod fere libenter homines id, quod volunt, credunt. His *rebus adducti* non prius Viridovicem *reliquosque duces* ex concilio dimittunt, quam ab his *sit concessum*, arma uti *capiant* et ad castra contendant.—3, 18

6 Translate into Latin [Do not use rare or poetic constructions]:

a Caesar must provide grain for his army within three days.

b Sabinus heard that the Gauls had taken up arms and were marching against him.

c The army is about to pitch camp not far from this town.

7 Translate into Latin [Do not use rare or poetic constructions]:

a We shall not lose the opportunity of announcing this to the people.

b There was so great scarcity of food that Caesar could not follow the enemy farther.

c The Gauls are going out from their camp to fight with the Romans.

8 Give the reason for the case of *die, rei* (*a*), *milia, passuum, manibus* (*b*); for the mode of *metiri* (*a*), *contulissent, venire* (*b*), *sit concessum, capiant* (*c*).

9 Write the principal parts of *existimavit* (*a*), *contulissent, egressi, accessisset* (*b*), *adducti* (*c*).

10 Decline the following in singular and plural: *exercitui* (*a*), *muro* (*b*), *superiorum* (*c*) in the masculine, *reliquos duces* (*c*).

11 Give the reason for the case of *diet, milibus* (*a*), *natu, eius* (*b*), *cunctatio, rebus* (*c*). Change *negotii . . . gerendi* (*c*) to the gerund construction. Compare *amplius* (*a*), *parum* (*c*).

12 Describe the Roman legion of Caesar's time, touching on (*a*) average number of men, (*b*) principal divisions, (*c*) officers.

13 Illustrate by an original Latin sentence the mode used in indirect discourse in (*a*) a principal declarative clause, (*b*) a command, (*c*) a dependent clause.

14 Write the second person plural of *each* of the tenses of the indicative and subjunctive, active and passive, of *capiant* (*c*).

15 Give the composition of *each* of the following and show how the meaning of each is derived: *intervallo* (*a*), *significare* (*b*), *adducti* (*c*). Mention an English word derived from the stem of *amplius* (*a*), *omnia* (*b*), *auditum, provisum* (*c*).

SALLUST'S CATILINE

Thursday, January 29, 1903—9.15 a. m. to 12.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a

CATILINE REPLIES TO CICERO

Tum M. Tullius consul, sive praesentiam *eius timens* sive *ira conmotus*, *orationem habuit* luculentam atque utilem rei publicae, quam postea scriptam edidit. Sed ubi ille adsedit, Catilina, ut erat paratus ad dissimulanda omnia, demisso *vultu voce* supplicii postulare a patribus coepit, ne quid de se temere *crederent*: ea familia ortum, ita se ab adulescentia *vitam instituisse*, ut omnia bona in spe *haberet*. Ne *existumarent* sibi, patricio homini, cuius ipsius atque maiorum plurima *beneficia* in plebem Romanam essent, perdita re publica opus esse, cum eam *servaret* M. Tullius, *inquilinus civis urbis Romae*.—31

b

UMBRENUIS MAKES ADVANCES TO THE ALLOBROGES

Postquam *illos videt* queri de avaritia magistratuum, accusare senatum, quod in eo *auxili* nihil *esset*, miseriis suis remedium mortem expectare, "At ego", inquit, "vobis, si modo viri esse voltis, rationem ostendam, qua tanta *ista mala* effugiatis." Haec ubi dixit, Allobroges in maxumam spem adducti Umbrenum *orare*, ut *sui miseretur*: nihil tam asperum neque tam *difficile* esse, quod non cupidissime facturi essent, dum ea res civitatem *aere alieno liberaret*.—40

c

CATO REPLIES TO CAESAR

Coniuravere nobilissimi *cives patriam incendere*; Gallorum gentem infestissimam *nomini Romano* ad bellum arcessunt; dux hostium cum exercitu supra *caput* est: vos cunctamini etiam nunc et dubitatis, quid intra moenia deprentis *hostibus* *faciatis*? *Misereamini*, censeo, (deliquere homines adulescentuli per ambitionem) atque etiam armatos dimittatis: ne *ista* vobis mansuetudo et misericordia, si illi arma ceperint, in miseriam convortat. *Scilicet* res ipsa *aspera* est, sed vos non timetis eam.—52

6 Translate into Latin [Do not use rare or poetic constructions]:

a It is said that Cicero delivered the fourth oration against Catiline in the senate, December fifth.

b Let the Allobroges ask aid of the senate if they wish to free themselves from their misfortunes.

7 Translate into Latin [Do not use rare or poetic constructions]:

a There were some who did not believe the consul when he accused Catiline of these things.

b I fear that it may be necessary to protect this city from those enemies who are within its walls.

8 Give the reason for the case of *eius*, *voce* (*a*), *auxili*, *aere* (*b*), *nomini* (*c*); for the mode of *instituisse*, *servaret* (*a*), *esset*, *liberaret* (*b*), *faciatis* (*c*).

9 Write the principal parts of *timens*, *crederent* (*a*), *liberaret* (*b*). Write the second person singular of *each* of the tenses of the subjunctive, active and passive, of *videt* (*b*).

10 Give the reason for the case of *ira*, *Romae* (*a*), *illos*, *sui* (*b*), *hostibus* (*c*); for the mode of *haberet*, *existumarent* (*a*), *orare*, *misereretur* (*b*), *misereamini* (*c*).

11 Decline the following in the singular: *timens* (*a*) in the masculine, *vultu* (*a*), *sui* (*b*), *nomini Romano* (*c*); the following in the plural: *ista mala* (*b*), *caput* (*c*). Compare *difficile* (*b*), *aspera* (*c*).

12 Write on *two* of the following: the proposition of Caesar in respect to the punishment of the conspirators, the aid rendered Cicero by the Allobroges, the character of Catiline as portrayed by Sallust.

13 Explain the reference in *orationem habuit*, *inquilinus civis* (*a*). Account for the use of the reflexive pronoun *sui* (*b*). Explain in full the force of *ista* (*c*). Change *patriam incendere* (*c*) to a subordinate clause of equivalent meaning.

14 Give the composition of *each* of the following and show how the meaning of *each* is derived: *beneficia* (*a*), *coniuravere*, *scilicet* (*c*). Mention an English word containing the stem of *voce*, *vitam* (*a*), *orare* (*b*), *cives* (*c*).

15 Translate into English:

Igitur domi militiaeque boni mores colebantur; concordia maxuma, minuma avaritia erat; ius bonumque apud eos non legibus magis quam natura valebat. Iurgia, discordias, simulates cum hostibus exercebant, cives cum civibus de virtute certabant. In suppliciis deorum magnifici, domi parci, in amicos fideles erant.—9

SALLUST'S CATILINE

Thursday, June 18, 1903—9.15 a. m. to 12.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a

CATILINE DESIRED ROYAL POWER

Hunc post dominationem L. Sullae libido maxuma invaserat *rei publicae* capiundae, neque id *quibus modis adsequeretur*, dum sibi regnum *pararet*, quicquam *pensi* habebat. Agitabatur magis magisque in dies animus *ferox* inopia *rei familiaris* et *conscientia* scelerum, quae *utraque* eis artibus *auxerat*, quas supra memoravi. Incitabant *praeterea* corrupti civitatis mores, quos pessuma ac diversa inter se mala, *luxuria* atque avaritia, vexabant.—5

b

THE ALLOBROGES TREAT WITH THE CONSPIRATORS

Sed Allobroges ex praecepto *Ciceronis* per Gabinium ceteros conveniunt. Ab Lentulo, Cethego, Statilio, item Cassio postulant ius iurandum, quod signatum ad civis *perferant*: aliter haud facile eos ad tantum *negotium* impelli *posse*. Ceteri nihil suspicantes dant, Cassius semet eo *brevi* venturum pollicetur ac paulo ante legatos ex urbe *proficiscitur*. Lentulus cum eis T. Volturcium *quendam* Crotoniensem *mittit*, ut Allobroges prius quam *domum pergerent*, cum Catilina data atque *accepta fide* societatem confirmarent.—44

c

CATILINE ADDRESSES HIS SOLDIERS

Itaque contione advocata huiusce modi *orationem* habuit:

Conpertum ego *habeo*, milites, *verba virtutem* non addere, neque ex ignavo strenuum neque *fortem* ex timido exercitum oratione imperatoris fieri. Quanta cuiusque animo audacia natura aut moribus inest, tanta in bello *patere solet*. Quem neque gloria neque *pericula* excitant, nequiquam *hortere*: timor animi *auribus officit*. Sed ego vos, quo *pauca* monerem, advocavi, simul uti causam mei consili *aperirem*.—57-58

6 Translate into Latin [Do not use rare or poetic constructions]:

(a) Catiline has so great a desire for royal power that he will do anything to obtain it, (b) Do you know whether the legates of the Gauls will require an oath from these men or not?

7 Translate into Latin [Do not use rare or poetic constructions]:

(a) Since the customs of this state are corrupt, the evils that are among us increase daily and become less easy to oppose, (b) Catiline, while exhorting his soldiers, said that he would disclose his plans to them.

8 Give the reason for the case of *rei publicae*, *conscientia* (a), *domum* (b), *verba*, *auribus* (c); for the mode of *adsequeretur* (a), *perferant*, *pergerent* (b), *patere*, *hortere* (c).

9 Decline the following in the singular: *rei familiaris*, *utraque* (a) in the masculine, *fide* (b), *virtutem* (c); the following in the plural: *quibus modis* (a), *quendam* (b) in the neuter, *fortem* (c) in the feminine, *pericula* (c).

10 Give the reason for the case of *pensi*, *luxuria* (a), *Ciceronis*, *fide* (b), *fortem* (c); for the mode of *pararet* (a), *posse* (b). Compare *ferox* (a), *fortem*, *pauca* (c).

11 Write the principal parts of *auxerat* (a), *proficiscitur*, *accepta* (b), *solet*, *aperirem* (c).

12 Write the first person plural of *each* of the tenses of the indicative and subjunctive active of *mittit* (b). Write the second person, singular and plural, of the imperative present, active and passive, and all the infinitives of *habeo* (c).

13 Give a sketch of the life of Sallust and mention his principal works.

14 Give the derivation or composition of *each* of the following and show how the meaning of each is derived: *praeterea* (a), *orationem*, *officit* (c). Give an English word derived from the stem of *ferox* (a), *negotium*, *brevi* (b), *verba* (c).

15 Translate into English:

Igitur circiter kalendas Iunias L. Caesare et C. Figulo consulibus primo singulos appellare, hortari alios, alios temptare; opes suas, inparatam rem publicam, magna praemia coniurationis docere. Ubi satis explorata sunt quae voluit, in unum omnis convocat, quibus maxuma necessitudo et plurimum audaciae inerat.—17

University of the State of New York
High School Department

176TH EXAMINATION

CICERO'S ORATIONS

Friday, January 30, 1903—9.15 a. m. to 12.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a LIFE IN ROME SHOULD BE INTOLERABLE TO CATILINE

Potestne tibi haec lux, Catilina, aut huius caeli spiritus esse lucundus, cum *scias* esse *horum* neminem, qui nesciat *te pridie* Kalendas Ianuarias Lepido et Tullo consulibus stetisse in comitio cum telo, manum *consulum* et principum civitatis interficiendorum *causa* paravisse, *sceleri* ac furori tuo non *mentem aliquam* aut timorem tuum, sed fortunam populi Romani *obstitisse*? Ac iam illa omitto (neque enim sunt aut obscura aut non *multa* commissa postea); quotiens tu me designatum, quotiens consulem interficere conatus es!—In Catilinam, 1, 6

b CICERO DISCUSSES CAESAR'S SPEECH

Sed tamen meorum *periculorum* rationes utilitas rei publicae vincat. Habemus enim a Caesare, sicut *ipsius* dignitas et maiorum eius amplitudo postulabat, sententiam tamquam *obsidem* perpetuae in rem publicam voluntatis. *Intellectum est*, quid *interesset* inter levitatem contionatorum et *animum* vere popularem *saluti* populi consulentem. Video de istis, qui se *populares* haberi volunt, abesse non *neminem*, ne de *capite* videlicet civium Romanorum sententiam *ferat*.—In Catilinam, 4, 5

c ARCHIAS HAD DISTINGUISHED PATRONS

Hac tanta *celebritate* famae cum esset iam absentibus *notus*, *Romam* venit *Mario* consule et Catulo. Nactus est primum consules eos, quorum *alter* res ad scribendum maximas, alter cum res gestas, tum etiam studium atque aures *adhibere posset*. Statim Luculli, cum praetextatus etiam tum Archias esset, eum *domum suam* receperunt. Et erat hoc non solum *ingenii* ac litterarum, verum etiam naturae atque virtutis, ut domus, quae huius adulescentiae prima favit, eadem esset *familiarissima senectuti*.—Pro Archia Poeta, 3

6 Translate into Latin [Do not use rare or poetic constructions]:

a The zeal of all good citizens is so great that there is no fear of Catiline.

b Since Archias was a man of great talent and learning, Lucullus was very friendly to him.

7 Translate into Latin [Do not use rare or poetic constructions]:

a I do not know whether Catiline is preparing to kill the principal men at Rome or not.

b These men were absent from the senate that they might not seem to have good-will toward the republic.

8 Give the reason for the case of *horum* (*a*), *populares* (*b*), *celebritate*, *Romam*, *senectuti* (*c*); for the mode of *scias*, *obstitisse* (*a*), *interesset*, *ferat* (*b*), *posset* (*c*).

9 Decline throughout *mentem aliquam* (*a*), *ipsius* (*b*) in the masculine, *domum suam* (*c*).

10 Give the reason for the case of *consulum*, *sceleri* (*a*), *periculorum*, *obsidem*, *neminem* (*b*), *Mario* (*c*); for the mode of *vincat* (*b*), *adhibere* (*c*). Compare *multa* (*a*), *familiarissima* (*c*).

11 Distinguish in meaning *scias* (*a*) and *intellectum est* (*b*), *mentem* (*a*) and *animum* (*b*). Explain in full the reference in *te pridie . . . obstitisse* (*a*), *Mario* (*c*).

12 Give the Roman method of designating the year and the day of the month in the time of Cicero.

13 Write the principal parts of *intellectum est* (*b*), *adhibere* (*c*). Change *consulum . . . causa* (*a*) to the gerund construction; to a dependent clause of equivalent meaning.

14 Give the composition of *each* of the following and show how the meaning of each is derived: *neminem*, *videlicet* (*b*), *ingenii* (*c*). Give an English word containing the stem of *saluti*, *capite* (*b*), *notus*, *alter* (*c*).

15 Translate into English:

An vero ullam usquam esse oram tam desertam putatis, quo non illius diei fama pervaserit, cum universus populus Romanus referto foro completisque omnibus templis, ex quibus hic locus conspici potest, unum sibi ad commune omnium gentium bellum Cn. Pompeium imperatorem depoposcit? — Pro Lege Manilia, 15

High School Department

177TH EXAMINATION

CICERO'S ORATIONS

Friday, March 27, 1903—9.15 a. m. to 12.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a CICERO DEFENDS HIS COURSE WITH CATILINE

His ego sanctissimis rei publicae vocibus et eorum *hominum*, qui hoc idem sentiunt, *mentibus* pauca *respondebo*. Ego si hoc optimum factu iudicarem, patres conscripti, Catilinam *morte* multari, unius usuram horae *gladiatori isti* ad vivendum non *dedissem*. Etenim, si summi *viri* et clarissimi *cives* Saturnini et *Gracchorum* et Flacci et superiorum complurium sanguine non modo se non contaminarunt, sed etiam honestarunt, *certe* verendum *mihi* non erat, ne quid hoc parricida *civium* interfecto *invidiae* mihi in posteritatem *redundaret*.

—In Catilinam, 1, 12

b CATILINE'S ABSENCE MADE EXPOSURE EASY

Quae nunc *illo* absente sic *gesta sunt*, ut *nullum* in privata domo *furtum* umquam *sit* tam palam *inventum*, quam haec tanta in re publica coniuratio manifesto inventa *atque* deprehensa est. Quodsi Catilina in urbe ad hanc diem remansisset, quamquam, quoad fuit, omnibus eius *consiliis* occurri *atque* obstiti, tamen, ut levissime *dicam*, dimicandum nobis cum illo fuisset, neque nos umquam, cum ille in *urbe* hostis esset, tantis *periculis* rem publicam tanta *pace*, tanto otio, tanto silentio liberassemus.—In Catilinam, 3, 7

c POMPEY WAS MADE PROCONSUL CONTRARY TO PRECEDENT

Quid tam inusitatum, quam ut, cum *duo consules clarissimi* fortissimique *essent*, *eques Romanus* ad bellum maximum formidolosissimumque pro consule mitteretur? Missus est. Quo quidem *tempore* cum esset non nemo in *senatu*, qui diceret non oportere mitti *hominem privatum* pro consule, L. Philippus dixisse dicitur non se illum sua *sententia* pro consule, sed pro consulibus *mittere*.—Pro Lege Manilia, 21

6 Translate into Latin [Do not use rare or poetic constructions]:

(a) There are some who think that the consul ought to have punished Catiline with death, (b) Since the conspiracy has been so plainly discovered, I do not fear that parricide who is now absent.

7 Translate into Latin [Do not use rare or poetic constructions]:

(a) Would that I might free the state from all danger! (b) Do not speak the things that you have in mind, (c) Do you know whether Pompey was sent to Asia with his army or not?

8 Give the reason for the case of *morte*, *invidiae* (a), *illo* (b, line 1), *periculis* (b), *hominem* (c); for the mode of *dedissem*, *redundaret* (a), *sit inventum* (b), *essent*, *mittere* (c).

9 Decline the following in the singular: *vir*, *cives* (a), *nullum furtum* (b), *eques Romanus* (c); the following in the plural: *gladiatori isti* (a), *duo consules* (c).

10 Write the third person plural of *each* of the tenses of the indicative, active and passive, of *gesta sunt* (b). Write the principal parts of *respondebo* (a), *sit inventum* (b).

11 Give the reason for the case of *hominum* (a), *mihi* (a, line 8), *civium* (a), *consiliis*, *pace* (b), *tempore*, *sententia* (c); for the mode of *dicam* (b). Compare *certe* (a), *clarissimi* (c).

12 Write a sketch of Cicero as (a) an orator, (b) a statesman, (c) a writer.

13 Explain the reference in *Gracchorum* (a), *quae . . . gesta sunt* (b), *hominem privatum* (c). Select from questions 1-5 a supine in *u* and give its syntax. Give the force of *gladiatori isti* (a), *atque* (b, line 3).

14 Give the derivation or composition of *each* of the following and show how the meaning of each is derived: *gladiatori* (a), *nullum* (b), *senatu* (c). Mention an English word containing the stem of *mentibus*, *cives* (a), *urbe* (b), *duo* (c).

15 Translate into English:

Quam multas nobis imagines non solum ad intuentum, verum etiam ad imitandum fortissimorum virorum expressas scriptores et Graeci et Latini reliquerunt! Quas ego mihi semper in administranda re publica proponens animum et mentem meam ipsa cogitatione hominum excellentium conformabam.

— Pro Archia Poeta, 6

CICERO'S ORATIONS

Friday, June 19, 1903—9.15 a. m. to 12.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a CATILINE WILL SOON BE IN ARMS

Dicatur sane eiectus esse a me, dum modo *eat* in exilium. Sed, *mihi* credite, non est iturus. Numquam *ego* ab dis *immortalibus optabo*, Quirites, invidiae meae levandae causa, ut L. Catilinam ducere exercitum hostium atque in *armis volitare audiat*, sed *triduo* tamen audietis; multoque magis illud timeo, ne *mihi* sit invidiosum aliquando, quod illum *emiserim* potius quam quod *iecerim*. Sed cum *sint* homines, qui illum, cum profectus sit, eiectum esse dicant, *idem*, si *interfectus* esset, quid dicerent?—In Catilinam, 2, 7

b ALL FREEMEN ARE ASSEMBLED FOR THE COMMON DEFENSE

Pari *studio defendundae rei publicae* convenisse video *tribunos aerearios*, fortissimos *viros*; *scribas* item *universos*, quos cum *casu* hic dies ad aerarium *frequentasset*, video ab *expectatione sortis* ad salutem communem esse conversos. Omnis ingenuorum adest multitudo, etiam tenuissimorum. *Quis* est enim, cui non haec templa, aspectus urbis, possessio libertatis, lux denique haec ipsa et hoc commune *patriae* solum cum *sit* carum, tum vero dulce atque iucundum?—In Catilinam, 4, 7

c SELF-RESTRAINT IS REQUISITE FOR A COMMANDER

Itinera quae per hosce *annos* in Italia per *agros* atque oppida *civium* Romanorum *nostri imperatores* fecerint, recordamini; tum facilius statuētis, quid apud *exteris* nationes fieri existimetis. Utrum plures arbitramini per hosce *annos* militum vestrorum *armis* hostium urbes an hibernis sociorum civitates *esse deletas*? Neque enim potest exercitum is *continere* imperator, qui se ipse non continet, neque severus esse in iudicando, qui *alios* in *se* severos esse iudices non *vult*.

—Pro Lege Manilia, 13

6 Translate into Latin [Do not use rare or poetic constructions]: (*a*) Would that all good citizens might zealously defend

this city! (b) If Catiline should be put to death, what would those who are hostile to Cicero say? (c) Do not destroy the temples of the gods.

7 Translate into Latin [Do not use rare or poetic constructions]: (a) Since Catiline is a common enemy, shall we not expel him from Rome? (b) Our generals do not easily restrain their soldiers, when they march through the countries of the allies, (c) There are those who wish these things.

8 Give the reason for the case of *mihi* (a, line 2), *mihi* (a, line 6), *studio*, *viros* (b), *civium* (c); for the mode of *audiat*, *sint*, *interfectus esset* (a), *sit* (b), *continere* (c).

9 Decline the following in the singular: *idem* (a) in the feminine, *casu* (b), *quis* (b) in the feminine, *alios* (c) in the neuter, *se* (c); the following in the plural: *ego*, *armis* (a), *patriae* (b), *nostri imperatores* (c).

10 Write the present imperative active and all the infinitives and participles (including gerundive), active and passive, of *dicatur* (a). Write the principal parts of *eiecerim* (a), *esse deletas* (c).

11 Give the reason for the case of *triduo* (a), *rei publicae*, *scribas* (b), *armis* (c); for the mode of *dicatur*, *eat*, *emiserim*, (a), *frequentasset* (b). Compare *potius* (a), *exteras* (c).

12 Write an outline of the fourth oration against Catiline.

13 Explain the reference in *tribunos aerarios*, *expectatione sortis* (b). Distinguish in meaning *optabo* (a) and *vult* (c). Change *defendundae* . . . *publicae* (b) to the gerund construction. Mention the class of derivatives to which *volitare* (a) belongs and give its derivation.

14 Give the composition of *each* of the following and show how the meaning of each is derived: *inmortalibus* (a), *universos* (b), *continere* (c). Give an English word derived from the stem of *ego* (a), *casu* (b), *annos*, *agros* (c).

15 Translate into English:

Neque enim quisquam est tam aversus a Musis, qui non mandari versibus aeternum suorum laborum facile praeconium patiatur. Themistoclem illum, summum Athenis virum, dixisse aiunt, cum ex eo quaereretur, quod acroama aut cuius vocem libentissime audiret: Eius, a quo sua virtus optime praedicaretur.—Pro Archia Poeta, 9

VIRGIL'S AENEID

Tuesday, January 27, 1903—1.15 to 4.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a

THE DESCENT OF MERCURY

Haec ait, et *Maia genitum demittit* ab alto,
ut *terrae* atque *novae* pateant *Karthaginis* arces
hospitio *Teucris*, ne *fati nescia* *Dido*
finibus arceret. Volat ille per aera magnum
remigio alarum, ac *Libyae* citus astitit *oris*.
Et iam iussa facit, *ponuntque* *ferocia* *Poeni*
corda volente *deo*; in primis regina quietum
accipit in *Teucros* animum mentemque benignam.

—1, 297-304

b

THE EXHORTATION OF ANCHISES

Tum memorat: Nate, *Iliacis* exercite *fatis*,
sola mihi *talis casus* *Cassandra* *canebat*.
Nunc *repeto* haec generi portendere debita nostro
et *saepe* *Hesperiam*, *saepe* *Italia regna vocare*.
Sed quis ad *Hesperiae* venturos *litora* *Teucros*
crederet? aut quem tum *vates* *Cassandra* moveret?
Cedamus *Phoebo* et moniti meliora sequamur.
Sic ait, et cuncti *dicto* paremus *ovantes*.—3, 182-189

c

THE MEETING OF AENEAS WITH CHARON

Troius *Aeneas*, *pietate insignis* et armis,
ad genitorem *inas Erebi* descendit ad umbras.
Si *te* nulla movet tantae pietatis imago,
at ramum hunc (aperit ramum, qui veste latebat)
adgnoscas. Tumida ex ira tum corda residunt,
nec plura his ille admirans venerabile donum
fatalis virgae, *longo* post *tempore* visum,
caeruleam *advertit* puppim ripaeque propinquat.—6, 403-410

6 Translate into Latin [Do not use rare or poetic constructions]:

a If Aeneas should take with him the golden bough, he would be able to descend to Erebus.

b Although Cassandra was a prophetess no one believed her when she foretold that Troy would be destroyed.

7 Translate into Latin [Do not use rare or poetic constructions]:

a This god was sent down to the shores of Libya, that the Carthaginians might receive Aeneas into their territories.

b Since he has warned us in regard to these misfortunes, we shall obey Phoebus.

8 Give the reason for the case of *Maia*, *fati* (*a*), *Teucros*, *dicto* (*b*), *pietate* (*c*); for the mode of *vocare*, *crederet* (*b*), *adgnoscas* (*c*). Give the force of the tense of *demittit* (*a*), *canebat* (*b*).

9 Decline the following in the singular: *ille* (*a*) in the neuter, *ovantes* (*b*) in the masculine, *longo tempore* (*c*); the following in the plural: *deo* (*a*), *talis casus* (*b*), *te* (*c*). Compare *novae* (*a*), *saepe* (*b*).

10 Give the reason for the case of *hospitio*, *remigio*, *deo* (*a*), *vates* (*b*), *Erebi*, *tempore* (*c*). Write the principal parts of *ponunt* (*a*), *canebat* (*b*).

11 Distinguish in meaning *oris* (*a*) and *litora* (*b*). Explain the reference in *Maia genitum*, *fati* (*a*), *pietate insignis* (*c*). Mention and explain the figure of speech in *remigio* (*a*).

12 Write the first *three* lines of (*c*), indicating quantity of syllables, division into feet and principal cesuras. Give the rule for the quantity of the penult of *pietate*; of the ultima of *imas*. Define and illustrate masculine cesura.

13 Give an account of *two* of the following: the story of the founding of Carthage by Dido, the Penates and their worship, the interview of Aeneas with the sibyl and the way in which he obtained the golden bough.

14 Give, with meaning of prefix and stem, the derivation or composition of *nescia* (*a*), *repeto* (*b*), *advertit* (*c*). Mention an English word containing the stem of *alto*, *terrae* (*a*), *dicto* (*b*), *tempore* (*c*).

15 Translate into English:

Tum vero Aeneas subitis exterritus umbris
corripit e somno corpus sociosque fatigat:
Praecipites vigilate, viri, et considite transtris;
solvite vela citi. Deus aethere missus ab alto
festinare fugam tortosque incidere funis
ecce iterum stimulat.—4, 571-576

VIRGIL'S AENEID

Friday, March 27, 1903—1.15 to 4.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a AENEAS SURVEYS THE SCENES IN THE TEMPLE

Namque sub *ingenti* lustrat dum singula *templo*
 reginam opperiens, dum, quae fortuna *sit urbi*,
artificumque manus inter se *operumque* laborem
 miratur, videt Iliacas ex ordine *pugnās*
 bellaque iam fama *totum* volgata per *orbem*,
 Atridas Priamumque et *saevom ambobus Achillem*.
 Constitit, et lacrimans "Quis iam locus," inquit, "*Achate*,
 quae regio in terris nostri non *plena laboris?*"—1, 453-460

b DIDO DISCLOSES HER PLAN OF DELIVERANCE

Inveni, germana, viam—gratare *sorori*—
 quae mihi *reddat* eum vel *eo* me solvat amantem.
 Oceani *finem* iuxta solemque cadentem
ultimus Aethiopum *locus* est, ubi *maximus Atlas*
axem umero torquet stellis ardentibus aptum:
 hinc mihi Massylae gentis monstrata sacerdos,
 Hesperidum templi custos epulasque draconi
 quae *dabat* et *sacros* servabat in arbore *ramos*.—4, 478-485

c AENEAS APPEALS TO THE SIBYL

Quin, ut te *supplex peterem* et tua limina adirem,
 idem *orans mandata* dabat. Gnatique *patrisque*,
 alma, precor, *miserere* (potes namque *omnia*, nec te
 nequiquam *lucis* Hecate praefecit Avernis),
 si potuit manis *arcessere coniugis Orpheus*
 Thraecia fretus cithara fidibusque canoris,
 si *fratrem* Pollux alterna morte *redemit*
 itque reditque viam totiens. Quid *Thesaea magnum*,
 quid *memorem* Alciden? Et mi *genus* ab Iove summo.

6 Translate into Latin [Do not use rare or poetic constructions]: (a) They say that there is no region on earth in which the fame of the Trojan battles is not spread abroad, (b) If we as suppliants should entreat Jupiter, he would give us all things that we wish.

7 Translate into Latin [Do not use rare or poetic constructions]: (a) May the priestess, who is keeper of the sacred trees, be propitious and free Dido from her troubles, (b) Aeneas approached the groves of Avernus and asked that he might go to see the shade of his father.

8 Give the reason for the case of *urbi, laboris* (a), *eo, stellis* (b), *lucis* (c); for the mode of *sit* (a), *reddat* (b), *arcessere, memorem* (c); for the tense of *dabat* (b).

9 Decline *Achate* (a), *Orpheus* (c). Decline the following in the singular: *ingenti templo, totum orbem* (a), *ultimus locus* (b), *orans* (c) in the masculine, *genus* (c).

10 Write the second person singular of *each* of the tenses of the subjunctive and imperative, active and passive, of *peterem* (c). Write the principal parts of *torquet* (b), *memorem* (c).

11 Give the reason for the case of *operum, ambobus* (a), *sorori, umero* (b), *patris, omnia, coniugis* (c). Compare *plena* (a), *ultimus, maximus* (b).

12 Explain the reference in *sævom . . . Achillem* (a), *Atlas . . . torquet, sacros . . . ramos* (b), *si fratrem . . . redemit, Thesea magnum* (c).

13 Write the first *three* lines of (c), indicating quantity of syllables, division into feet and principal cesuras. Give the rule for the quantity of the ultima of *miserere, omnia*; of the penult of *peterem, mandata*.

14 Give the composition of *each* of the following and show how the meaning of each is derived: *artificum* (a), *inveni* (b), *supplex* (c). Mention an English word containing the stem of *manus, pugnās* (a), *finem* (b), *fratrem* (c).

15 Translate into English:

Postquam cuncta videt caelo constare sereno,
dat clarum e puppi signum: nos castra movemus
temptamusque viam et velorum pandimus alas.
Iamque rubescebat stellis Aurora fugatis,
cum procul obscuros collis humilemque videmus
Italiam.—3, 518-523

High School Department

178TH EXAMINATION

VIRGIL'S AENEID

Tuesday, June 16, 1903—1.15 to 4.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a

THE ARTFUL STORY OF SINON

Hanc pro Palladio moniti, pro numine laeso
effigiem statuere, *nefas* quae *triste* *piaret*.
Hanc tamen *immensam* Calchas attollere *molem*
roboribus textis caeloque *educere* iussit,
ne *recipi* portis aut duci in *moenia* *possit*
neu populum *antiqua* sub religione *tueri*.
Nam si vestra manus *violasset* *dona Minervae*,
tum magnum *exitium* (quod di prius omen in ipsum
convertant!) Priami imperio Phrygibusque futurum.

—2, 183-191

b

DIDO'S CURSE

Tum vos, o Tyrii, stirpem et *genus* omne futurum
exercete odiis cinerique haec *mittite* nostro
munera: nullus amor *populis* nec foedera sunt.
Exoriare aliquis nostris ex *ossibus ultor*,
qui face Dardanios *ferroque* *sequare* colonos,
nunc, olim, quocumque dabunt se tempore vires.
Litora litoribus contraria, *fluctibus* undas
imprecor, arma armis: *pugnent* ipsique *nepotesque*.

—4, 622-629

c

THE COMBAT BETWEEN DARES AND ENTELLUS

Entellus vires in ventum *effudit*, et ultro
ipse *gravis* *graviterque* ad terram *pondere* vasto
concidit, *ut quondam* cava concidit aut Erymantho
aut Ida in magna *radicibus* eruta *pinus*.
Consurgunt studiis Teuceri et Trinacria pubes;
it clamor *caelo*, primusque accurrit Acestes
aequae *quumque* ab humo miserans attollit amicum.

—5, 446-452

6 Translate into Latin [Do not use rare or poetic constructions]: (a) If the Trojans had not brought this huge structure into the city, Troy would now exist, (b) May an avenger come to destroy those who are about to set up a figure of a horse.

7 Translate into Latin [Do not use rare or poetic constructions]: (a) When Entellus fell, the young men gave a great shout, but Acestes ran to him to raise him, (b) Since the gift of Minerva has been defiled by the hands of the Greeks, that divinity is offended.

8 Give the reason for the case of *Minervae*, *exitium* (a), *populis*, *ferro* (b), *radicibus* (c); for the mode of *educere*, *possit*, *violasset* (a), *sequere*, *pugnent* (b).

9 Explain the reference in *nefas . . . piaret*, *dona Minervae* (a), *exoriare . . . ultor* (b). Mention and explain the figure of speech in *ut quondam . . . pinus* (c). Select from questions 1-5 an example of poetic construction and give the corresponding prose construction.

10 Decline the following in the singular: *hanc immensam molem* (a), *ossibus* (b), *caelo* (c); the following in the plural: *moenia* (a), *fluctibus*, *nepotes* (b). Compare *triste* (a), *graviter* (c).

11 Draw an outline map of the Mediterranean sea and on it trace the course of Aeneas from Troy to Cumae in Italy, writing the names of the principal places visited.

12 Write the first *three* lines of (b), indicating quantity of syllables, division into feet and principal cesuras. Give the rule for the quantity of the ultima of *genus*; of the penult of *munera*. Define and illustrate elision.

13 Write the second person singular of each of the tenses of the imperative, active and passive, and the active and passive participles (including gerundive) of *recipi* (a). Write the principal parts of *tueri* (a), *mittite* (b), *consurgunt* (c).

14 Give the composition of *each* of the following and show how the meaning of each is derived: *nefas* (a), *effudit*, *aequaevum* (c). Give an English word derived from the stem of *antiqua* (a), *pugnent* (b), *gravis*, *pondere* (c).

15 Translate into English:

Daedalus, ut fama est, fugiens Minoia regna,
praepetibus pennis ausus se credere caelo,
insuetum per iter gelidas enavit ad arctos
Chalchidicaque levis tandem super astitit arce.
Redditus his primum terris tibi, Phoebe, sacravit
remigium alarum posuitque immania templa.—6, 14-19

High School Department

176TH EXAMINATION

VIRGIL'S ECLOGUES

Monday, January 26, 1903—9.15 a. m. to 12.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a MELIBŌEUS BIDS FAREWELL TO HIS FLOCKS

M. Ite meae, felix quondam pecus, ite capellae.

Non ego vos posthac viridi proiectus in antro

dumosa pendere procul de rupe videbo;

carmina nulla canam; non me pascente, capellae,

florentem cytisum et salices carpetis amaras.

T. Hic tamen hanc mecum poteris requiescere noctem

fronde super viridi: sunt nobis mitia poma,

castaneae molles et pressi copia lactis.—1, 74-81

b MOPSUS IS REQUESTED TO BEGIN THE CONTEST

Me. Incipe, Mopse, prior, si quos aut Phyllidis ignes,

aut Alconis habes laudes aut iurgia Codri.

Incipe: pascentes servabit Tityrus haedos.

Mo. Immo haec, in viridi nuper quae cortice fagi

carmina descripsi et modulans alterna notavi,

experiar: tu deinde iubeto, ut certet Amyntas.

Me. Lenta salix quantum pallenti cedit olivae,

puniceis humilis quantum saliunca rosetis,

iudicio nostro tantum tibi cedit Amyntas.—5, 10-18

c MOERIS RECITES THE POETRY OF MENALCAS

M. Id quidem ago et tacitus, Lycida, mecum ipse voluto,
si valeam meminisse; neque est ignobile carmen:

"Huc ades, o Galatea; quis est nam ludus in undis?"

Hic ver purpureum, varios hic flumina circum

fundit humus flores, hic candida populus antro

imminet et lentae texunt umbracula vites.

Huc ades; insani feriant sine litora fluctus."—9, 37-43

6 Translate into Latin [Do not use rare or poetic constructions]:

(a) Meliboeus says that hereafter he will not see his kids crop the leaves of the willows, (b) Will Mopsus not have great praise, since he is not inferior to thee, Amyntas?

7 Translate into Latin [Do not use rare or poetic constructions]:

(a) We can rest under this beech and contend in singing, while Tityrus guards the flocks, (b) If Amyntas had been present, I should have bidden him sing for me in this green arbor.

8 Give the reason for the case of *pecus, me, noctem* (a), *Codri, iudicio* (b), *antro* (c); for the mode of *poteras, requiescere* (a), *valeam, feriant* (c).

9 Decline throughout *carmina nulla* (a), *ignes* (b), *modulans* (b) in the masculine, *undis* (c).

10 Give the reason for the case of *nobis, lactis* (a), *fagi, olivae* (b). Give the corresponding prose construction for *ut certet* (b). Compare *felix* (a), *prior, humilis* (b), *ignobile, lentae* (c).

11 Mention and define the figure of rhetoric in *ignes, lenta salix . . . cedit Amyntas* (b), *neque est . . . carmen* (c). Mention the class of derivative verbs to which *voluto* (c) belongs and give its derivation. State the source from which Virgil borrowed lines 3-7 (c).

12 Write the principal parts of *ite* (a), *incipi, servabit* (b), *valeam, fundit* (c).

13 Write the first *three* lines of (c), indicating quantity of syllables, division into feet and principal cesuras. Give the rule for the quantity of the penult in *tacitus*, of the ultima in *ignobile*. Define and illustrate feminine cesura.

14 Give the composition of *each* of the following and show how the meaning of each is derived: *proiectus* (a), *descripsi* (b), *insani* (c). Mention an English word containing the stem of *pendere* (a), *ignes, humilis* (b), *ago* (c).

15 Translate into English:

D. Ab Iove principium Musae: Iovis omnia plena;
ille colit terras, illi mea carmina curae.

M. Et me Phoebus amat; Phoebo sua semper apud me
munera sunt, lauri et suave rubens hyacinthus.

D. Malo me Galatea petit, lasciva puella,
et fugit ad salices et se cupit ante videri.—3, 60-65

VIRGIL'S ECLOGUES

Monday, June 15, 1903—9.15 a. m. to 12.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a PALAEMON IS UNABLE TO DECIDE THE CONTEST

D. Dic, quibus in terris—et eris *mihi magnus Apollo*—
tres *pateat* caeli spatium non amplius *ulnas*.

M. Dic, quibus in terris inscripti *nomina* regum
nascantur *flores*, et *Phyllida solus* habeto.

P. Non *nostrum* inter vos tantas *componere* lites.
Et vitula tu *dignus*, et hic, et quisquis *amores*
aut metuet *dulces*, aut experietur *amaros*.

Claudite iam rivos, pueri; sat prata biberunt.—3, 104-111

b MELIBOEUS WITNESSES THE TRIAL OF SKILL

M. Posthabui tamen illorum mea seria *ludo*.

Alternis igitur *contendere versibus* ambo
coepere, alternos Musae meminisse volebant.

Hos Corydon, illos *referebat* in ordine Thyrsis.

C. Nymphae, noster amor, Libethrides, aut mihi *carmen*,
quale meo Codro, concedite—*proxima Phoebi*
versibus ille facit—aut, si non possumus omnes,
hic arguta *sacra pendebit fistula pinu*.—7, 17-24

c MOERIS QUOTES MENALCAS

L. Quid, quae te pura solum sub nocte canentem
audieram? Numeros memini, si verba *tenerem*.

M. Daphni, quid antiquos signorum suspicis ortus?
Ecce *Dionaei processit Caesaris astrum*,
astrum, quo segetes *gauderent* frugibus, et quo
duceret apricis in *collibus* uva colorem.

Insere, Daphni, piros: carpent tua poma *nepotes*.

Omnia fert *aetas*, animum quoque; saepe ego longos
cantando puerum memini *me condere soles*.—9, 44-52

6 Translate into Latin [Do not use rare or poetic constructions]: (a) If we should contend in song here under this pine, Palaemon would settle this dispute for us, (b) They say that in the meadows there are flowers on which the names of kings are inscribed.

7 Translate into Latin [Do not use rare or poetic constructions]: (a) I fear that I can not keep in mind the words of those lines that I have often heard Phyllis sing, (b) He grafts the pear-trees in order that his descendants may be pleased with the fruit when they pluck it.

8 Give the reason for the case of *mihi*, *ulnas* (a), *versibus* (b, line 2), *pinu* (b), *me* (c); for the mode of *pateat*, *componere* (a), *contendere* (b), *tenerem*, *gauderent* (c).

9 Decline *Phyllida* (a), *cantando* (c). Decline the following throughout: *solus* (a) in the feminine, *carmen* (b), *astrum*, *collibus* (c).

10 Give the reason for the case of *nomina*, *nostrum* (a), *ludo*, *Phoebe* (b), *versibus* (b, line 7), *puerum* (c). Compare *dignus*, *dulces* (a), *proxima*, *sacra* (b).

11 Explain the reference in *magnus Apollo* (a), *sacra pinu*, *pendebit fistula* (b), *Dionaei*, *Caesaris astrum* (c).

12 Write the second person singular of *each* of the tenses of the indicative, subjunctive and imperative, active, of *componere* (a). Write the principal parts of *pendebit* (b), *gauderent* (c).

13 Write the last *three* lines of (c), indicating quantity of syllables, division into feet and principal cesuras. Give the rule for the quantity of the penult of *nepotes*; of the ultima of *aetas*. Define spondaic verse, hendiadys.

14 Give the derivation or composition of *each* of the following and show how the meaning of each is derived: *referebat* (b), *processit*, *insere* (c). Give an English word derived from the stem of *nomina*, *flores* (a), *proxima* (b), *soles* (c).

15 Translate into English:

Mo. Daphnis et Armenias curru subiungere tigres
instituit, Daphnis thiasos inducere Bacchi
et foliis lentas intexere mollibus hastas.
Vitis ut arboribus decori est, ut vitibus uvae,
ut gregibus tauri, segetes ut pinguibus arvis:
tu decus omne tuis.—5, 29-34

Tuesday, January 27, 1903—1.15 to 4.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a

THE APPEAL TO ARTAXERXES

Is autem ait ad Artaxerxen eum *venisse* atque his *verbis* epistulam misisse: *Themistocles* veni ad te, qui plurima mala omnium *Graiorum* in domum tuam *intuli*, quamdiu *mihi* necesse fuit adversum *patrem tuum* *bellare* patriamque meam *defendere*. Idem multo plura bona feci, postquam in tuto ipse et ille in periculo esse coepit. Nam cum in *Asiam reverti vellet* proelio apud *Salamina* facto, *litteris* eum *certiorem* feci id agi ut *pons*, quem in *Hellesponto* *fecerat*, dissolveretur atque ab hostibus circumiretur: quo nuntio ille periculo est liberatus.

—Themistocles, 9

b

THE INFLUENCE OF DION

Hunc a Dionysio missum Karthaginienses sic suspexerunt, ut neminem umquam *Graeca lingua loquentem magis sint admirati*.

Neque vero haec Dionysium fugiebant: nam quanto *esset* sibi *ornamento, sentiebat*. Quo fiebat ut uni *huic* maxime indulgeret neque eum secus diligeret ac filium: *qui* quidem, cum *Platonem Tarentum* *venisse* fama in *Siciliam* *esset perlata*, adulescenti negare non potuerit, quin eum arcesseret, cum Dion eius audiendi *cupiditate flagraret*. Dedit ergo *huic* veniam magnaue eum ambitione *Syracusas perduxit*.—Dion, 1-2

c

THE FLIGHT OF HANNIBAL

Deinde *anno* post praeturam, M. Claudio L. Furio consulibus, *Roma* legati Karthaginem venerunt. Hos Hannibal ratus sui exoscendi gratia missos, priusquam iis *senatus daretur*, navem ascendit clam atque in *Syriam* ad Antiochum perfugit. *Hac re* palam facta Poeni naves *duas*, quae eum *comprehenderent*, si possent consequi, miserunt, bona *eius* publicarunt, domum a fundamentis *disiecerunt*, ipsum exulem *iudicarunt*.

—Hannibal, 7

6 Translate into Latin [Do not use rare or poetic constructions]:

(a) Themistocles, escaping from his native land, came to Artaxerxes that he might be safe from danger, (b) Since the Greeks defended their homes so bravely the king returned to his own country.

7 Translate into Latin [Do not use rare or poetic constructions]:

(a) Plato, who is at Tarentum, is about to come to Syracuse, a large city in Sicily, (b) It is said that the legates who were sent by the Roman senate demanded Hannibal of the Carthaginians.

8 Give the reason for the case of *mihi* (a), *huic* (b, line 4), *Tarentum* (b), *anno, Roma* (c); for the mode of *venisse, reverti* (a), *sint admirati* (b), *esset* (b, line 3), *daretur* (c).

9 Decline the following in the singular: *te* (a), *loquentem* (b) in the masculine, *qui* (b) in the masculine, *senatus* (c); the following in the plural: *patrem tuum* (a), *hac re* (c). Compare *certiorem* (a), *magis* (b).

10 Write the principal parts of *defendere, vellet* (a), *sentiebat, perduxit* (b), *iudicarunt* (c).

11 Give the reason for the case of *verbis, Graiorum* (a), *ornamento, Platonem, cupiditate* (b), *re, eius* (c); for the mode of *bellare* (a), *flagraret* (b), *comprehenderent* (c).

12 Explain the reference in *pons . . . fecerat* (a), *Platonem* (b). Give the location of *each* of the following: *Tarentum, Syracusas* (b), *Syriam* (c).

13 Write in indirect discourse *Themistocles . . . defendere* (a). [Assume the verb of saying to be in the present tense.]

14 Give, with meaning of prefix and stem, the derivation or composition of *intuli, reverti* (a), *disiecerunt* (c). Mention an English word containing the stem of *verbis, litteris* (a), *lingua* (b), *duas* (c).

15 Translate into English:

Neque vero hoc solum in Graecia fecit, ut templa deorum sancta haberet, sed etiam apud barbaros summa religione omnia simulacra arasque conservavit. Itaque praedicabat mirari se, non sacrilegorum numero haberi, qui supplicibus deorum nocuissent, aut non gravioribus poenis affici qui religionem minuerent, quam qui fana spoliarent.—Agesilaus, 4

Tuesday, June 16, 1903—1.15 to 4.15 p. m., only

Answer the first six questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a PAUSANIAS TAKES REFUGE IN THE TEMPLE OF MINERVA

His *rebus* ephori cognitissatius putarunt in urbe eum comprehendi. Quo cum *essent profecti* et Pausanias placato Argilio, ut putabat, *Lacedaemonem* reverteretur, in *itinere*, cum iam in eo esset ut comprehenderetur, ex vultu cuiusdam ephori, qui *eum* admoneri cupiebat, insidias sibi *fieri* intellexit. Itaque paucis ante *gradibus*, quam qui eum sequebantur, in aedem Minervae, quae Chalcioicos vocatur, confugit. Hinc ne exire posset, statim ephori valvas eius aedis *obstruxerunt* tectumque sunt demoliti, quo *celerius* sub divo *interiret*.—Pausanias, 5

b CONON INFORMS THE KING OF THE SCHEME OF TISSAPHERNES

Tum Conon "Mihi vero" inquit "non est grave *quemvis* honorem *habere regi*, sed vereor ne civitati meae *sit opprobrio*, si, cum ex ea sim profectus, quae ceteris *gentibus* imperare consuerit, *potius barbarorum* quam illius *more* fungar." Itaque quae volebat huic scripta *tradidit*. Quibus cognitiss rex tantum auctoritate eius motus est, ut et Tissaphernem hostem *iudicaret* et Lacedaemonios bello persequi iusserit et ei permiserit quem *vellet* eligere ad dispensandam pecuniam.—Conon 3-4

c OLYMPIAS SENDS MESSENGERS TO EUMENES

Ad hunc Olympias, *mater* quae *fuera*t Alexandri, cum litteras et nuntios misisset in Asiam consultum, utrum repetitum *iret* Macedoniam (nam tum in Epiro habitabat) et suas res *occuparet*, huic ille primum suasit, ne se *moveret* et exspectaret, quoad Alexandri *filius* regnum *adipisceretur*; sin aliqua *cupidine* raperetur in Macedoniam, oblivisceretur omnium *iniuriarum* et in neminem acerbiore *uteretur* imperio.—Eumenes, 6

6 Translate into Latin [Do not use rare or poetic constructions]:

(a) The ephors must seize Pausanias while he is returning to the city, (b) Conon says that he will observe the custom of his own country rather than that of barbarians, (c) Have you not paid out the money that I sent?

7 Translate into Latin [Do not use rare or poetic constructions]:

(a) They are about to destroy the roof of the temple into which he has fled, (b) We feared that Conon might not be able to persuade the king, (c) He sent a letter to warn me.

8 Give the reason for the case of *rebus*, *Lacedaemonem* (a), *opprobrio*, *more* (b), *iniuriarum* (c); for the mode of *essent profecti*, *interiret* (a), *habere*, *iudicarit* (b), *iret* (c).

9 Write the principal parts of *obstruxerunt*, *interiret* (a), *tradidit* (b), *occuparet*, *uteretur* (c).

10 Decline the following throughout: *itinere*, *gradibus* (a), *gentibus* (b), *aliqua* (c) in the masculine. Compare *celerius* (a), *potius* (b).

11 Give the reason for the case of *eum* (a, line 5), *gradibus* (a), *barbarorum* (b), *huic*, *cupiditate* (c); for the mode of *fieri* (a), *sit*, *vellet* (b), *adipisceretur* (c); for the tense of *fuerat* (c).

12 Write biographic sketches of *two* of the following: Pausanias, Alexander the Great, Cato the Elder, Conon.

13 Write the second person singular of *each* of the tenses of the indicative and subjunctive active of *moveret* (c). Translate into Latin: *Seize ye, be ye seized, he shall be seized, they shall seize, to be about to seize.*

14 Give the derivation or composition of *each* of the following and show how the meaning of each is derived: *itinere* (a), *quemvis* (b), *iniuriarum* (c). Mention an English word derived from the stem of *gradibus* (a), *regi* (b), *mater*, *filius* (c).

15 Translate into English:

M. Cato, ortus municipio Tusculo, adolescentulus, priusquam honoribus operam daret, versatus est in Sabinis, quod ibi heredium a patre relictum habebat. Inde hortatu L. Valerii Flacci, quem in consulatu censuraque habuit collegam, ut M. Perpenna censorius narrare solitus est, Romam demigravit in foroque esse coepit.—Cato, 1

High School Department

176TH EXAMINATION

LATIN—Third Year

Tuesday, January 27, 1903—1.15 to 4.15 p. m., only

Answer the first seven questions and three of the others but no more. If more than three of the others are answered only the first three answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a VERCINGETORIX SENDS OUT HIS CAVALRY TO SEEK AID

Vercingetorix, priusquam munitiones ab Romanis *perficiantur*, consilium capit, omnem ab se equitatum noctu dimittere. Discedentibus mandat, ut suam quisque eorum civitatem *adeat* omnesque, qui per aetatem arma ferre possint, ad bellum cogant. Sua in illos merita proponit obtestaturque, ut suae salutis rationem habeant, neu se *optime* de communi libertate meritum *hostibus* in cruciatum *dedant*. Quod si indiligentiores *fuerint*, *milia* hominum delecta octoginta una secum interitura demonstrat.—Caesar, De Bello Gallico, 7, 71

rationem habeo = take into consideration, *cruciatu* = torture

b CICERO DESIRES THAT THE TRIAL OF VERRES BE CONDUCTED AS SPEEDILY AS POSSIBLE

Nunc ego, iudices, iam vos consulo, quid *mihi* faciendum *putetis*; id enim *consilii* mihi profecto taciti dabit, quod ego met mihi necessario capiendum intellego. Si utar ad dicendum meo legitimo *tempore*, mei laboris, industriae diligentiaeque capiam fructum et perficiam, ut nemo umquam post hominum memoriam *paratior*, vigilantior, compositior ad iudicium *venisse* videatur. Sed in hac laude industriae meae, reus ne elabatur, summum periculum est. Quid est igitur, quod fieri *possit*?

reus = defendant, *elabor* = escape —Cicero, In Verrem, 1, 11

c JUNO COMPLAINS OF THE GOOD FORTUNE OF THE TROJANS

Tum quassans caput haec effundit *pectore* dicta:

Heu stirpem invisam et *fatis* contraria nostris
fata Phrygum! Num Sigeis occumbere campis,
num capti potuere capi? Num incensa cremavit
Troia viros? Medias acies mediosque per ignis
invenere viam. At, credo, mea numina tandem
fessa iacent odiis aut exsaturata quievi,
quin etiam patria excussos infesta per undas
ausa sequi et profugis toto me opponere ponto.

—Virgil, Aeneid, 7, 292-300

exsaturo = satiate, *quin etiam* = yet, *profugus* = exile

6 Translate into Latin [Do not use rare or poetic constructions]: (a) I have come, jurors, for the purpose of consulting you in regard to this trial, (b) Before Caesar approaches with his army, we shall finish the fortifications that are around the town.

7 Translate into Latin [Do not use rare or poetic constructions]: (a) If we had been more vigilant we should not have been captured by the cavalry, (b) O that Aeneas and all his companions had perished when the city was taken and burned!

8 Give the reason for the case of *hostibus, milia* (a), *mihi* (b, line 1), *consilii, tempore, paratior* (b), *pectore, fatis* (c). Compare *optime* (a), *paratior* (b).

9 Give the reason for the mode of *perficiantur, adeat, fuerint* (a), *putetis, venisse, possit* (b). Write the principal parts of *dedant* (a), *ausa* (c).

10 Translate into English:

Sed cum tot signis eadem natura declaret, quid velit, anquirat, desideret, tamen obsurdescimus nescio quo modo nec ea, quae ab ea monemur, audimus. Est enim varius et multiplex usus amicitiae, multaeque causae suspicionum offensionumque dantur, quas tum evitare, tum elevare, tum ferre sapientis est.—Cicero, De Amicitia, 24

obsurdesco=be deaf, *elevo*=make light of

11 Discuss the style and mention the principal works of *each* of the following: Caesar, Sallust, Virgil.

12 Translate into English:

Te quoque, Amyclaide, posuisset in aethere Phoebus,
tristia si spatium ponendi fata dedissent.

Qua licet, aeternus tamen es: quotiensque repellit
ver hiemem, Piscique Aries succedit aquoso,
tu totiens oreris, viridique in caespite flores.

—Ovid, Metamorphoses, 10, 162–166

caespes=field, *floreo*=blossom

13–14 Translate into English:

Numidae paucis diebus iussa efficiunt. Litterae Adherbalis in senatu recitatae, quarum sententia haec fuit: Non mea culpa saepe ad vos oratum mitto, patres conscripti, sed vis Iugurthae subigit, quem tanta lubido extinguendi me invasit, ut neque vos neque deos immortalis in animo habeat, sanguinem meum quam omnia malit. Itaque quintum iam mensem socius et amicus populi Romani armis obsessus teneor; neque mihi Micipsae patris mei beneficia neque vostra decreta auxiliantur; ferro an fame acrius urgear, incertus sum.

—Sallust, Bellum Iugurthinum, 24

15 Write original Latin sentences illustrating (a) a command in indirect discourse, (b) the use of the supine in *u*, (c) the dative of purpose or end, (d) the potential subjunctive, (e) the objective genitive.

High School Department

178TH EXAMINATION

LATIN—Third Year

Tuesday, June 16, 1903—1.15 to 4.15 p. m., only

Answer the first seven questions and three of the others but no more. If more than three of the others are answered only the first three answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-5 Translate into English:

a CAESAR'S REQUEST FOR A CONFERENCE

Inter bina castra Pompei atque *Caesaris* unum flumen intererat Apsus, *crebraque* inter se colloquia milites habebant, neque ullum interim telum per pactiones loquentium traiciebatur. Mittit P. Vatinius *legatum* ad ripam ipsam fluminis, qui ea, quae maxime ad pacem pertinere viderentur, *ageret* et crebro magna *voce* pronuntiaret: liceretne civibus ad cives de pace tuto legatos mittere, quod etiam fugitivis ab saltu Pyrenaeo praedonibusque licuisset, praesertim cum id *agerent*, ne cives cum civibus *armis decertarent*?

—Caesar, De Bello Civili, 3, 19

saltus = mountain pass, *praedo* = robber

b THE PRINCIPAL LAW OF FRIENDSHIP

Haec igitur prima lex amicitiae sancitur, ut ab amicis honesta petamus, amicorum causa honesta *faciamus*, ne exspectemus quidem, dum *rogemur*; studium semper adsit, cunctatio absit; consilium vero dare *audeamus libere*. Plurimum in amicitia amicorum bene suadentium valeat auctoritas, eaque et adhibeatur ad monendum non modo aperte, sed etiam acriter, si res postulabit.—Cicero, De Amicitia, 13

sancio = establish, *adhibeo* = employ

c THE RESPONSE OF THE ORACLE

Mota dea est sortemque dedit: "Discedite *templo*, et velate caput, cinctasque resolvite vestes, ossaque post tergum magnae iactate parentis." Obstipuerunt *diu*, rumpitque silentia voce Pyrrha prior, *iussisque* deae *parere* recusat, detque sibi veniam, pavido rogat ore, pavetque laedere iactatis maternas *ossibus* umbras. Interea *repetunt* caecis obscura latebris verba datae sortis secum, inter seque volutant.

—Ovid, Metamorphoses, 1, 381-389

venia = pardon, *paveo* = fear, *laedo* = offend

6 Translate into Latin [Do not use rare or poetic constructions]: (a) Caesar, since he wished to treat with Pompey con-

cerning peace, sent a legate to ask for a conference, (b) Do not advise your friends to do what is dishonorable, but always give them good counsel.

7 Translate into Latin [Do not use rare or poetic constructions]: (a) It would be well if Deucalion and Pyrrha should obey the order of the goddess, after they have departed from the temple, (b) He asked why there was any delay in performing what he demanded.

8 Give the reason for the case of *Caesaris, legatum, voce, armis* (a), *templo, iussis, ossibus* (c). Compare *crebra* (a), *libere* (b), *diu* (c).

9 Give the reason for the mode of *ageret, agerent, decertarent* (a), *faciamus, rogemur* (b), *parere* (c). Write the principal parts of *audeamus* (b), *repetunt* (c).

10 Translate into English:

Metellus postquam videt frustra inceptum, neque oppidum capi neque Iugurtham nisi ex insidiis aut suo loco pugnam facere et iam aestatem exactam esse, ab Zama discedit et in eis urbibus, quae ad se defecerant satisque munitae loco aut moenibus erant, praesidia inponit. Ceterum exercitum in provinciam, quae proxuma est Numidiae, hiemandi gratia conlocat.—Sallust, Bellum Iugurthinum, 61

11 Write an account of *two* of the following: (a) the circumstances that led to the civil war between Caesar and Pompey, (b) the powers of a Roman consul, (c) the capture of Troy.

12 Translate into English:

Iunonem interea rex omnipotentis Olympi
adloquitur fulva pugnans de nube tumentem:
Quae iam finis erit, coniunx? Quid denique restat?
Indigetem Aenean scis ipsa et scire fateris
deberi caelo fatisque ad sidera tolli.

—Virgil, Aeneid, 12, 791-795

fulvus=golden, *indiges*=demigod

13-14 Translate into English:

Exspectanti mihi tuas cotidie litteras Lupus noster subito denuntiavit, ut ad te scriberem, si quid vellem. Ego autem, etsi, quid scriberem, non habebam (acta enim ad te mitti sciebam, inanem autem sermonem litterarum tibi iniucundum esse audiebam), brevitatem secutus sum te magistro. Scito igitur in te et in collega spem omnem esse. De Bruto autem nihil adhuc certi; quem ego, quem ad modum praecipis, privatis litteris ad bellum commune vocare non desino. Qui utinam iam adesset! Intestinum urbis malum, quod est non mediocre, minus timeremus.—Cicero, Ad Familiares, 11, 25

collega=colleague

15 Write Latin sentences in which *quominus, ut non, antequam, ne non* and *dummodo* are used to introduce subordinate clauses.

LATIN PROSE COMPOSITION

Monday, January 26, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

Translate into Latin [Do not use rare or poetic constructions]:

1 Though Caesar gave the Gauls an opportunity of fighting, yet they remained in camp with their forces.

2 If the good fortune of this leader had been equal to his virtues, he would have been a famous man.

3 I shall be freed from great fear, Catiline, provided that the walls are between us.

4 It is said that ambassadors will be sent to Caesar by those nations that dwell across the Rhine.

5 Before Hamilcar arrived in Sicily, the Carthaginians carried on affairs badly on land and sea.

6 The Helvetii persuaded the Tulingi that they should set out through our province, after burning the towns in that region.

7 Critias, the leader of the tyrants, fell in the second battle, while he was fighting bravely against Thrasybulus.

8-9 There is no one so stupid that he does not perceive that a conspiracy against the state has been formed by these men; therefore it is necessary that they be punished.

10-11 Caesar encamped that day very near the Germans. The latter kept sending messengers to him for the purpose of causing a delay till their cavalry should return.

12-13 But let us not speak too long concerning this man who confesses that he is a public enemy and whom I do not fear, because he is outside of the city.

14-15 Lysander feared that his avarice would be reported to his fellow-citizens. Therefore he desired Pharnabazus to write a letter concerning his uprightness and send it to the ephors.

stupid=*stultus*, avarice=*avaritia*, uprightness=*integritas*, ephor=*ephorus*

High School Department

178TH EXAMINATION

LATIN PROSE COMPOSITION

Monday, June 15, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

Translate into Latin [Do not use rare or poetic constructions]:

1 If the rest of the soldiers had not obeyed him, Caesar would have attacked with the tenth legion.

2 The Carthaginians chose Hannibal commander of their forces in Spain before he was twenty-five years of age.

3 Shall we not permit Catiline to depart from Rome, provided that the state be thus freed from danger?

4 Though Agesilaus is very rich, yet he is contented with the same house that his father used to occupy.

5 Caesar gives them an opportunity of departing, but they fear lest they may be punished by their own chiefs.

6 When the Persian fleet was approaching Greece, some of the Athenians wished to defend Athens, others to fight outside of the city.

7 It is reported that the Bellovaci will demand the direction of the war, because they have sent the greatest number of soldiers.

8-9 Go out from the city, Catiline. Would that you were already on the way to the camp of Manlius, your associate in this conspiracy! You can not remain longer at Rome and plot against the republic.

10-11 Caesar leads out his forces from both camps, and, advancing a short distance, draws up his army near the camp of the enemy. The latter are so terrified that they dare not join battle.

12-13 When Catiline came yesterday into the temple of Jupiter, by whom was he saluted? When I asked him whether or not he had been at Laeca's house on the sixth of November, was he not silent?

14-15 Since a war had to be fought with the Thracians, the Athenians sent messengers to Delphi. Miltiades was made leader because of the response of the oracle. In a short time the Thracians were conquered.

contented = *contentus*, occupy = *utor*, direction = *imperium*, plot = *coniuro*, yesterday = *hesterno die*, oracle = *oraculum*

High School Department

175TH EXAMINATION

ARITHMETIC

Thursday, September 25, 1902—9.15 a. m. to 12.15 p. m., only

Answer the first five questions and five of the others but no more. If more than five of the others are answered only the first five answers will be considered. Give all operations (except mental ones) necessary to find results. Reduce each result to its simplest form and mark it Ans. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define *five* of the following: abstract number, decimal, factor, metric system, percentage, proportion, par value.

2 Simplify
$$\frac{1\frac{1}{2} \times (2\frac{1}{2} + \frac{1}{3} - 1\frac{1}{3} \div \frac{1}{3})}{(5 + 8\frac{1}{2} \times 1\frac{1}{2}) \div \frac{1}{3}}$$

3 Find the simple interest of \$432 at $3\frac{1}{2}\%$ from November 30, 1900 to the present date.

4 A dealer bought 12 dozen bananas for $1\frac{1}{4}\phi$ a piece and sold them for 18ϕ a dozen; find his per cent of gain and his whole gain.

5 To what depth will 384 dekaliters of water fill a rectangular tank 3 meters 2 decimeters long and 1 meter 5 decimeters wide?

6 Find the greatest common divisor of 2470 and 3857.

7 Find the cost, @ 60ϕ a cubic yard, of digging a cellar 7 feet deep, 36 feet long and 24 feet wide.

8 There are 14 feet of water in a well 3 feet in diameter; how many gallons of water are there in the well? [1 gallon = 231 cubic inches.]

9 A floor is 8 feet wide and the distance between two diagonally opposite corners is 17 feet; find the cost, @ 9ϕ a square yard, of painting the floor.

10 An agent retaining a commission of \$48.79, sent his principal \$1345.21 as the proceeds of a sale of tea @ 85ϕ a pound; find the number of pounds of tea sold by the agent.

11 If the brokerage is $\frac{1}{2}\%$, find the annual income derived from the investment of \$15,428 in $5\frac{1}{2}\%$ stock at $137\frac{1}{2}$.

12 The proceeds of a three months note discounted at a bank at 6% are \$728.90; find the face of the note.

13 A tax of \$7207.32 is to be raised in a town whose taxable property is assessed at \$565,280; find the rate of taxation and the tax on property assessed at \$7200.

14 Find the net amount of a bill for \$729 subject to successive discounts of $8\frac{1}{2}\%$ and 4% for cash.

15 Find the ratio of £1 8s 2d 3 far. to £35 5s 8d 3 far.

High School Department

176TH EXAMINATION

ARITHMETIC

Thursday, January 29, 1903—9.15 a. m. to 12.15 p. m., only

Answer the first five questions and five of the others but no more. If more than five of the others are answered only the first five answers will be considered. Give all operations (except mental ones) necessary to find results. Reduce each result to its simplest form and mark it Ans. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define five of the following: numeration, prime factor, multiple, board foot, square root, trade discount, stock.

2 Simplify
$$\frac{2 \times (\frac{3}{8} - \frac{2}{8} \div 2\frac{1}{2} - 1\frac{5}{8} \times 1\frac{1}{8})}{1 \div (9 - 2 \times 2)}$$

3 A bin 2 meters 6 decimeters long and 1 meter 5 decimeters wide, contains 2535 liters of wheat; find the depth of the bin.

4 A horse and wagon were sold for \$120 each; the horse was sold at a loss of 25%, the wagon at a gain of 25%. Find how much was gained or lost on the whole transaction.

5 A man borrowed \$2700 November 11, 1901, with interest at 5%; find the amount of his debt today.

6 My broker bought for me 26 shares of stock at 107 and sold them at 118 $\frac{1}{2}$, brokerage in each case $\frac{1}{4}$ %; find my gain.

7 Find the cost @ \$23 per M of a stick of timber 30' long 10' wide and 8" thick.

8 A man fails and pays 67 cents on a dollar; after paying his lawyer a fee of 4%, how much would a creditor receive on a claim of \$625?

9 A 90 day note without interest, dated December 10, 1902, yields \$458.92 proceeds when discounted today at 6%; find the face of the note.

10 Find the difference in a bill of \$925 between a discount of 25% and a discount of 10%, 10% and 5%.

11 A garden 145 feet long and 120 feet wide is inclosed by a tight board fence 6 feet high; find the cost, @ 8¢ a square yard, of painting both sides of the fence.

12 A house worth \$3500 was insured for 75% of its value at the rate of $\frac{3}{4}$ %; find the premium paid.

13 The distance around a rectangular field whose width is $\frac{1}{4}$ its length, is 98 rods; find the area of the field.

14 What will it cost, @ 16¢ a square foot, to cover with gold-leaf a circle 28 inches in diameter?

15 On a note for \$500, with interest at 6%, dated March 5, 1902, a payment of \$18 was made September 11, 1902; find the amount due today.

University of the State of New York
High School Department

177TH EXAMINATION

ARITHMETIC

Thursday, March 26, 1903—9.15 a. m. to 12.15 p. m., only

Answer the first five questions and five of the others but no more. If more than five of the others are answered only the first five answers will be considered. Give all operations (except mental ones) necessary to find results. Reduce each result to its simplest form and mark it Ans. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

- 1 Divide 6.531884 by .01396 and multiply the quotient by 5.78.
- 2 Find the amount of \$741 at $3\frac{1}{2}\%$ simple interest from June 28, 1901 to the present date.
- 3 A dealer sold coal at an advance of \$5.32 on a ton which was a gain of 95%; find the selling price a ton.
- 4 A bin is 3 meters 2 centimeters long, 1 meter 8 decimeters high and 1 meter 5 decimeters wide; find in liters the capacity of the bin.
- 5 A merchant buys through an agent 184 yards of silk @ \$1.35 a yard and pays a commission of 5%; find the total cost of the silk to the merchant.
- 6 Add $\frac{225}{1088}$ and $\frac{115}{1888}$.
- 7 A farmer sows 2 bushels 1 peck of wheat to the acre in a field 22 rods long and 20 rods wide; find the cost of the wheat @ 80¢ a bushel.
- 8 Find the square root of 325.3 to three decimal places.
- 9 Of a flight of 8 steps, each step is 18 inches wide, 1 foot high and 6 feet long; find the cost, @ 9¢ a square yard, of painting the steps.
- 10 Make a receipted bill of the following items charged against you by H. Ames: March 4, 1903, $4\frac{1}{2}$ hours labor @ 35¢; March 5, 3 pounds nails @ 5¢ and 13 feet lumber @ $3\frac{1}{2}$ ¢; March 6, $8\frac{1}{2}$ hours labor @ 30¢.
- 11 A merchant sells a coat for \$14.70 after making a discount of 20% from the list price and a further discount of $6\frac{1}{4}\%$ for cash; find the list price of the coat.
- 12 A bin is 12' long, 7' wide and 4' deep; find the number of bushels of wheat it will hold, and the weight in pounds of the wheat. [1 bushel wheat=2150.4 cubic inches and weighs 60 pounds.]
- 13 A man owes \$236.40 which he pays with the proceeds of his note for 90 days, discounted at a bank at 6%; find the bank discount.
- 14 A man sells 160 shares of 4% stock at $87\frac{3}{4}$ and invests the proceeds of the sale in 6% stock at 124 $\frac{1}{2}$, brokerage in each case being $\frac{1}{2}\%$; find how much his annual income is increased.
- 15 Define five of the following: division, fraction, premium, denominate number, negotiable note, net proceeds, ratio.

High School Department

178TH EXAMINATION

ARITHMETIC

Thursday, June 18, 1903—9.15 a. m. to 12.15 p. m., only

Answer the first five questions and five of the others but no more. If more than five of the others are answered only the first five answers will be considered. Give all operations (except mental ones) necessary to find results. Reduce each result to its simplest form and mark it Ans. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

- 1 Simplify $\frac{\frac{2}{3} + 1\frac{1}{2} \div 2\frac{1}{3} - 1\frac{1}{2}}{\frac{2}{3} - \frac{1}{3} \times \frac{1}{3}} \div 8$
- 2 Find the simple interest of \$542.60 at 4% from August 27, 1902 to the present date.
- 3 A man bought 580 bushels of grain @ 75¢ a bushel and sold the whole amount for \$513.30; find his per cent of gain.
- 4 One edge of a cubic block of marble is 8 decimeters 2 centimeters long; marble is 2.7 times as heavy as water. Find the weight in kilograms of the block.
- 5 What income will a man receive from an investment of \$20,171.25 in 5% stock at 122 $\frac{1}{2}$, brokerage $\frac{1}{4}$ %?
- 6 Find the greatest common divisor and the least common multiple of 252, 180 and 756.
- 7 Find the cost, @ \$1.17 a yard, of carpeting a room 18' 8" $\times$ 15' 9", with carpet 27" wide, if the strips of carpet run lengthwise.
- 8 A wall 20' long, 6' high and 12" thick is built of brick; there are 22 common bricks in a cubic foot of masonry. Find the cost of the bricks @ \$11 per M.
- 9 Find how many gallons of oil a cylindric cask will hold that is 18' high and 11' in diameter. [1 gallon = 231 cubic inches.]
- 10 What is the ratio of 56 A. 64 sq rds 14 sq yds to 75 A. 32 sq rds 18 sq yds 6 sq ft?
- 11 Write a negotiable promissory note, without interest, for \$156.50, dated today and payable in 60 days at the First National Bank; make J. Towne the payee and yourself the maker of the note.
- 12 If the note mentioned in question 11 is discounted July 1 at 6%, what will be the proceeds of the note?
- 13 Find the cost, @ 12¢ a square yard, of painting a stage in the form of a trapezoid whose parallel sides, 25' apart, are respectively 28' and 22'.
- 14 Find the net proceeds of the sale, through a commission merchant, of 455 barrels of apples @ \$1.25 a barrel, the rate of commission being 4% and other charges being 14¢ a barrel.
- 15 On property whose valuation is \$500,000, a tax is laid to pay for a public building costing \$8136 and the collector's fee of \$164; what is the rate of taxation?

ADVANCED ARITHMETIC

Monday, January 26, 1903—9.15 a. m. to 12.15 p. m., only

Answer eight questions but no more. If more than eight are answered only the first eight answers will be considered. Give each step of solution. Express final result in its simplest form and mark it Ans. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

1 Find the exact value of $.25\bar{3} + .018\bar{5} \div .1\bar{6} - .3\bar{3}$ and express the result both as a common fraction and as a circulating decimal.

2 How much will the product of two numbers be decreased by decreasing each of the numbers by one? Give a general proof.

3 A merchant sold $\frac{1}{2}$ of an invoice of goods at a loss of 15%; he then sold the remainder so that his gain on the whole transaction was 15%. Find the merchant's per cent of gain on the latter sale.

4 Multiply 45,732 by 5236 and prove the correctness of your result by *two* different methods. Show why the method of proof by casting out nines is not an infallible test of correctness.

5 If $\frac{1}{16}$ of a bushel of peaches costs \$1.80 what will $\frac{1}{8}$ of a bushel cost? Solve by proportion and demonstrate the principle on which the operation is based.

6 A man invested \$526.50 for one year in three different amounts at 3%, 4% and 6% respectively, so that the same interest accrued from the three sums invested; find the amount of each investment.

7 A merchant is offered on a bill of \$5680 six months credit or a discount of 2% and 2% for cash. He borrows the money for six months at 5% and discounts the bill; by so doing how much less will he have to pay at the date of the maturity of the bill?

8 How was our unit of length originally determined? Show the relation to this unit of our unit of (a) area, (b) volume, (c) capacity (liquid measure and dry measure).

9 A cylindric milk-can, 1 meter in height and 6 decimeters in diameter, is full of watered milk which weighs 1.02 times as much as water; pure milk weighs 1.03 times as much as water. Find the number of kilograms of water added to the pure milk.

10 The first term of a series of 16 terms is $16\frac{1}{4}$; the sum of the series is $411\frac{1}{4}$. Find the common difference.

11 What weight, 6 feet from the fulcrum, will balance two weights of 12 pounds each which are respectively 4 feet and 2 feet from the fulcrum and on the other side of it? [Two weights that balance each other are inversely proportional to their distances from the fulcrum.]

12 The base and altitude of a triangle are respectively 6 feet and 4 feet; find the base and the altitude of a similar triangle whose area is 20 square feet.

High School Department

178TH EXAMINATION

ADVANCED ARITHMETIC

Monday, June 15, 1903—9.15 a. m. to 12.15 p. m., only

Answer eight questions but no more. If more than eight are answered only the first eight answers will be considered. Give each step of solution. Express final result in its simplest form and mark it Ans. Each complete answer will receive $12\frac{1}{2}$ credits. Papers entitled to 75 or more credits will be accepted.

1 Define mixed circulating decimal, standard time, specific duty, present worth, geometric series.

2 Find the product of 4.397 and 99.999 to three decimal places by two different methods of contracted multiplication.

3 State the principle applied in testing the divisibility of any number by each of the following numbers, without dividing it by them: 4, 5, 9. Demonstrate in each case the principle applied.

4 State a method of finding the sixth root of any number and demonstrate the correctness of the method. Find the sixth root of 1544.804416.

5 Prove that the product of any three consecutive numbers is divisible by 6.

6 Find the cost, @ \$25 per M, of 30 pieces of lumber 20' long, 21' wide at one end and 17' wide at the other, and $1\frac{1}{4}$ ' thick.

7 A druggist bought brandy @ \$3 a gallon and after adding water, sold the mixture @ \$3 a gallon, gaining 50%; find what per cent of the mixture was water.

8 A man sells two articles at the same price; on one he gains $r\%$, on the other he loses $r\%$. Does he gain or lose on the whole transaction? Give proof.

9 A man bought c shares of stock at par and sold them at $b\%$ discount, brokerage in each case being $a\%$; find his loss on the transaction.

10 A pendulum 99 centimeters long makes 60 vibrations a minute; how long must a pendulum be to make 72 vibrations a minute? [The lengths of pendulums are inversely proportional to the squares of their numbers of vibrations.]

11 Find the extremes of an arithmetic progression of 9 terms whose sum is 243 and whose common difference is 6.

12 Find the face of a 60 day draft on New York, purchased in Boston for \$659.85, exchange being $\frac{1}{2}\%$ premium and money being worth 6%.

High School Department

175TH EXAMINATION

ALGEBRA

Tuesday, September 23, 1902—9.15 a. m. to 12.15 p. m., only

Answer the first four questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Give each step of solution. Reduce fractions to lowest terms. Express final result in its simplest form and mark it Ans. Each complete answer will receive $12\frac{1}{2}$ credits. Papers entitled to 75 or more credits will be accepted.

1 Simplify $\frac{1+\frac{x}{x+1}}{x+\frac{1}{1+x}} \div \frac{(x+1)^2-x^2}{x^2-1}$

2 Factor five of the following: $a^2-b^2-c^2+2bc$, $(a+b)^2-1$, $xy+a^2-ax-ay$, $m^2-11m-60$, $27a^3-64$, $1+a^7$, $8x^2+22x+12$

3 Divide 53 into two such parts that the first part divided by the second equals 2 with a remainder 2.

4 Solve $5x^2-16x=5\frac{1}{4}$

5 Find the least common multiple of $7a^3+4a^2b+4ab^2$ and $4a^3-a^2b-ab^2-5b^3$

6 Solve $\begin{cases} \frac{x}{a} + \frac{y}{b} = \frac{a-b}{ab} \\ \frac{x}{b} + \frac{y}{a} = \frac{a^2-b^2}{a^2b^2} \end{cases}$

7 Write out by the binomial theorem the first four terms of $(2a-\frac{1}{3}b)^6$, giving all the work for finding the coefficients.

8 A man can row down a river at the rate of 8 miles an hour, but takes twice as long to row a mile up the river as to row a mile down the river; find his rate of rowing in still water and the rate of the stream.

9 Solve $\begin{cases} x+y=7 \\ x^{\frac{1}{3}}+y^{\frac{1}{3}}=1 \end{cases}$

10 Solve $\sqrt{x+7}=4\sqrt{x+2}-5\sqrt{x-1}$

11 There are two numbers such that the product of the first and 1 more than the second is 306; the product of the second and 1 less than the first is 272. Find the numbers.

12 Simplify $(\sqrt{1-2x+1})^2$; $\sqrt[3]{\frac{1}{16}} - \sqrt[3]{32} + \frac{1}{4}\sqrt[3]{2^3} + \frac{1}{2}\sqrt[3]{16}$; $\frac{3-\sqrt[4]{3}}{3+\sqrt[4]{3}}$

High School Department

176TH EXAMINATION

ALGEBRA

Monday, January 26, 1903—9.15 a. m. to 12.15 p. m., only

Answer the first four questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Give each step of solution. Reduce fractions to lowest terms. Express final result in its simplest form and mark it Ans. Each complete answer will receive $12\frac{1}{2}$ credits. Papers entitled to 75 or more credits will be accepted.

1 Factor five of the following: $6a^3 - 11a - 2$, $x^7 + y^7$, $c^6 + y^6$, $1 - (x - y)^3$, $ab - b^2 - a + b$, $2x^3 - 4xy + 2y^3$, $a^{2m} - a^m - 2$

2 Solve $x^2 - \frac{4}{3}x = \frac{4}{3}$

3 Solve $\begin{cases} \frac{x}{3} + 3y = -15 \\ \frac{x}{4} - 5y = 38 \end{cases}$

4 Solve $\sqrt{4x+2a} + 2\sqrt{a} = \frac{8x}{\sqrt{a}}$

5 Find the least common multiple of $6x^3 + 5x^2 - 16x - 15$ and $4x^3 + 4x^2 - 5x - 3$

6 Write out by the binomial theorem the first four terms of $\left(\frac{a}{2} - 2b\right)^7$, giving all the work for finding the coefficients.

7 A man by increasing his rate of walking 1 mile an hour gains 4 hours in walking 35 miles; find his ordinary rate of walking.

8 Solve $\begin{cases} x^2 + xy = m^2 + mn \\ xy + y^2 = mn + n^2 \end{cases}$

9 Find the square root of

$$4x^{4a} - 8x^{3a+1} + 4x^{2a+2} + 4x^{2a+1} - 4x^{a+2} + x^3$$

10 The sum of the four sides of a rectangle is 20, the square of the diagonal is 58; find the dimensions of the rectangle.

11 Simplify $1 + \frac{a}{1+a+\frac{2a^2}{1-a}} \times \frac{\frac{a+1}{a-1} + \frac{a-1}{a+1}}{\frac{a+1}{a-1} - \frac{a-1}{a+1}}$

12 Simplify $x\sqrt{xy^3} + \sqrt{\frac{x}{y}} - y\sqrt{x^3y} + \sqrt{xy + \frac{7xy}{9}}$;

$$\frac{3+\sqrt{5}}{3-\sqrt{5}} - \frac{3-\sqrt{5}}{3+\sqrt{5}}; (\sqrt{x}+y\sqrt{x}-x\sqrt{y}-\sqrt{y})(\sqrt{x}+\sqrt{y})$$

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177TH EXAMINATION

ALGEBRA

Thursday, March 26, 1903—9.15 a. m. to 12.15 p. m., only

Answer the first four questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Give each step of solution. Reduce fractions to lowest terms. Express final result in its simplest form and mark it Ans. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

1 Divide $x^{3a+1} + x^{2a} - x^{a+1} + x^a$ by $x^{a+1} + x$

2 Factor five of the following: $4x^2 - 4x - 3$, $a^5 + y^5$, $x^4 + x$, $c^2 - cd + c - d$, $a^3 - b^3$, $a^3 - 2ab + b^3 - a^2b^2$, $x^4 - 7x^2 + 1$

3 Solve $x^2 - \frac{a^2}{3} + \frac{ax}{3} = ax$

4 Simplify

$$2\sqrt[4]{4} - \sqrt[4]{16} - (\sqrt{2})^{\frac{4}{3}}; \frac{2 + \sqrt{6}}{8 + \sqrt{6}}; (a\sqrt{a} + b\sqrt{b}) \times (\sqrt{a} + \sqrt{b})$$

5 Solve
$$\begin{cases} 2x - 4y - 3z = -19 \\ 3x - 2y + z = 11 \\ x + 3y - z = 8 \end{cases}$$

6 Expand by the binomial theorem the first four terms of $(2x^2 - 3)^7$, giving all the work for finding the coefficients.

7 Find the highest common factor (greatest common divisor) of $3x^4 + 7x^3 - 3x^2 - 9x + 2$ and $3x^3 + 13x^2 + 17x + 6$

8 A is $\frac{1}{4}$ as old as B, but 8 years hence A's age will be $\frac{1}{3}$ B's age; find the present age of each.

9 Solve
$$\frac{\sqrt{x+2} + \sqrt{x-3}}{\sqrt{x+2} - \sqrt{x-3}} = 5$$

10 Find the number of two digits which is equal to four times the sum of its digits and whose digits are reversed by adding 27 to the number.

11 Solve
$$\begin{cases} 3x - 2y = 13 \\ 3x^2 + xy - 2y^2 = 143 \end{cases}$$

12 The sum of two numbers is 8; the square of the first minus twice the square of the second equals 7. Find the numbers.

High School Department

178TH EXAMINATION

ALGEBRA

Monday, June 15, 1903—9.15 a. m. to 12.15 p. m., only

Answer the first four questions and four of the others but no more. If more than four of the others are answered only the first four answers will be considered. Give each step of solution. Reduce fractions to lowest terms. Express final result in its simplest form and mark it Ans. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

1 Simplify $\frac{6x^4+x^3+2x^2-13x+4}{2x^2+8x+4} \times (x^2-3x-2)$

2 Factor five of the following: $x^2-5x-24$, $ab-a-b+1$, $8c^6-x^3$, a^5-32 , $x^{3a}+1$, $1-a^2+2ab-b^2$, $a^4+a^2b^2+b^4$

3 Solve $\frac{x^2}{8}+ax=a^2+\frac{7ax}{6}$

4 Solve $2+\sqrt{x-b}=\sqrt{x+3b}$

5 Divide 150 into two such parts that one part shall be 2 less than 7 times the other part.

6 Solve $\begin{cases} \frac{x}{2}-2y-4z=2 \\ \frac{x}{4}+4y+3z=6 \\ x+y-z=7 \end{cases}$

7 Simplify

$$4\sqrt{24}-3\sqrt{54}+2\sqrt{6}+\sqrt{\frac{3}{2}}; y^n\sqrt[n]{x^{3n}y^{2n}}; (a^{\frac{1}{2}}-b^{\frac{1}{2}})+(a^{\frac{1}{2}}-b^{\frac{1}{2}})$$

8 Expand $(a+2b)^n$ to four terms, using the binomial theorem.

9 Solve $\begin{cases} x^2+y^2=53 \\ xy=14 \end{cases}$

10 The difference of the squares of two numbers is 16; the square of the difference of the numbers is 4. Find the numbers.

11 If each edge of a cube is decreased 2 feet, the volume of the cube will be decreased 218 cubic feet; find the edge of the first cube.

12 Define five of the following: simultaneous quadratics, literal equation, coefficient, monomial, negative term, transposition, involution.

High School Department

176TH EXAMINATION

ADVANCED ALGEBRA

Tuesday, January 27, 1903—9.15 a. m. to 12.15 p. m., only

Answer eight questions but no more. If more than eight are answered only the first eight answers will be considered. Give each step of solution. Reduce fractions to lowest terms. Express final result in its simplest form and mark it Ans. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

1 Simplify

$$(x^{-a})^b \div (x^{-a})^{-b} + \left[(x^{1-\frac{a}{b}})^{\frac{1}{a-b}} \times \sqrt[b]{(x^{-\frac{1}{a}})^a} \right]^2 \div \left(\frac{1}{x^{\frac{a}{b}}} \right)^{\frac{a}{b}}$$

2 Expand to four terms by the binomial formula $(x^{-1} + 3y^{\frac{1}{2}})^{-\frac{1}{2}}$, giving all the work for finding the coefficients.

3 By the method of synthetic division find the quotient of $a^7 - 2a^6b + a^5b^2 + 2a^3b^4 + 3a^2b^5 - 3ab^6$ divided by $a^3 + ab^2 - b^3$

4 Solve $\begin{cases} x^y = y^x \\ x^3 - y^3 = 0 \end{cases}$

5 Prove that a quadratic equation can have but two roots.

6 Resolve into partial fractions $\frac{8x^3 - 8x^2 + 9}{(x-1)^4}$

7 Determine by a general method the equal roots of

$$x^4 - 10x^3 + 37x^2 - 60x + 36 = 0$$

8 Prove that in an equation with real coefficients imaginary roots occur in pairs, if at all.

9 Find one limit of each of two numbers if twice the first plus the second number equals 16, and the first plus the second is greater than 13 minus half the second.

10 Derive a formula for finding (a) the sum of the terms of an arithmetic progression, (b) the harmonic mean between two given quantities.

11 Given $\sqrt{5} = 2.236$, $\sqrt{6} = 2.449$, $\sqrt{7} = 2.645$, $\sqrt{8} = 2.828$; find by interpolation $\sqrt{5.8}$

12 Explain and illustrate (a) four applications of logarithms to arithmetic computations, (b) two advantages of the common system over the Napierian.

High School Department

178TH EXAMINATION

ADVANCED ALGEBRA

Tuesday, June 16, 1903—9.15 a. m. to 12.15 p. m., only

Answer eight questions but no more. If more than eight are answered only the first eight answers will be considered. Give each step of solution. Reduce fractions to lowest terms. Express final result in its simplest form and mark it Ans. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

- 1 Solve $7x^{-\frac{1}{2}} - 20 = 3\sqrt{x}$
- 2 Find by the binomial theorem the value of $\sqrt[3]{9}$ to four decimal places.
- 3 From 6 Republicans and 8 Democrats 6 speakers consisting of 2 Republicans and 4 Democrats are to be selected; in how many different ways can the names of 6 speakers be arranged on the program?
- 4 If x varies inversely as $y^2 + 1$ and is equal to 18 when y is equal to 7, find the value of x when y is equal to 3.
- 5 Form the equation of the fourth degree with rational coefficients three of whose roots are 1, -3 and $1 + \sqrt{-23}$. State Descartes's rule of signs and show its application to this equation.
- 6 The 2d term of a geometric progression is $\frac{1}{18}$, the 5th term is $\frac{1}{18}$; find the 7th term. Derive the formula used.
- 7 In an equation of the n^{th} degree in the general form, state the relation existing between the roots and the coefficient of (a) the second term, (b) the third term, (c) the fourth term, (d) the last term.
- 8 Revert to four terms $y = x + 2x^2 + 3x^3 + 4x^4 + \dots$. Find the approximate value of x when $y = .2$
- 9 Prove that an equation of the n^{th} degree containing but one unknown quantity, has n roots and no more.
- 10 Transform $x^5 - 5x^4 + 9x^3 - 9x^2 + 5x - 1 = 0$ into an equation whose roots shall be less by 2 than the roots of the given equation.
- 11 Derive the formula for finding by the method of differences the n^{th} term of a series.
- 12 Applying determinants, solve $\begin{cases} 2x + y = 12 \\ 3x - 4y = 7 \end{cases}$

PLANE GEOMETRY

Wednesday, September 24, 1902—9.15 a.m. to 12.15 p.m., only

Answer eight questions but no more, including at least one from each of the three divisions. If more than eight are answered only the first eight answers will be considered. Draw carefully and neatly each figure in construction or proof, using letters instead of numerals. Arrange work logically. Each complete answer will receive $12\frac{1}{2}$ credits. Papers entitled to 75 or more credits will be accepted.

First division 1 Define *five* of the following: converse, angle, perpendicular, obtuse triangle, median, pentagon, sector.

2 Prove that the perpendicular is the shortest line that can be drawn to a straight line from an external point.

3 Prove that if two sides of a triangle are equal respectively to two sides of another, but the third side of the first triangle is greater than the third side of the second, the angle opposite the third side of the first triangle is greater than the angle opposite the third side of the second.

4 Prove that two triangles which have their sides respectively perpendicular are similar.

5 Prove that if from a point without a circle a secant and a tangent are drawn, the tangent is a mean proportional between the whole secant and its external segment.

Second division 6 It requires $41\frac{1}{2}$ rods of fencing to inclose a semi-circular field; find the area of the field.

7 Two sides of a triangle are respectively 15 inches and 13 inches; the diameter of the circumscribed circle is $16\frac{1}{2}$ inches. Find the altitude on the third side of the triangle.

8 The center of a chord 10 inches in length is $1\frac{1}{2}$ inches from the circumference; find the diameter of the circle.

9 The area of a regular hexagon equals $24\sqrt{3}$; find the apothem of the hexagon.

10 Find the area of a circle circumscribed about an equilateral triangle whose side is a .

Third division 11 Show how to construct a square equivalent to $2\frac{1}{2}$ times a given square.

12 Show how to inscribe in a given circle a triangle similar to a given triangle.

13 Prove that if one leg of an isosceles triangle is the diameter of a circle the circumference bisects the base.

14 Prove that the perpendiculars drawn from two vertices of an acute triangle to the opposite sides divide each other into segments which are reciprocally proportional.

15 Prove that the star-shaped polygon formed by producing the sides of a regular hexagon is equivalent to twice the given hexagon.

High School Department

176TH EXAMINATION

PLANE GEOMETRY

Wednesday, January 28, 1903—9.15 a.m. to 12.15 p.m., only

Answer eight questions but no more, including at least one from each of the three divisions. If more than eight are answered only the first eight answers will be considered. Draw carefully and neatly each figure in construction or proof, using letters instead of numerals. Arrange work logically. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

First division 1 Define five of the following: postulate, demonstration, alternate interior angles, hypotenuse, chord, trapezoid, similar figures.

2 Prove that from a point without a straight line one perpendicular and only one can be drawn to the line.

3 Complete and demonstrate the following: an angle formed by a tangent and a chord is measured by . . .

4 Prove that if two triangles have an angle of the one equal to an angle of the other and the including sides proportional, they are similar.

5 Complete and demonstrate the following: the area of a parallelogram is equal to . . .

Second division 6 Two sides of a triangle are respectively 17 inches and 25 inches, and the altitude on the third side is 15 inches; find the area of the triangle.

7 Two intersecting chords and two secants intercept the same arcs on a given circumference; the angle formed by the chords is 42° , the angle formed by the secants is 6° . Find the number of degrees in the intercepted arcs.

8 The ratio of the triangles ABC and ABE is 3:1; AB is 2 inches and AC is 9 inches. Find the side AE , if E is on AC .

9 Find the area of a circle inscribed in a regular hexagon whose perimeter is 30 inches.

10 In a circle whose radius is $2\frac{1}{2}$ inches a chord 3 inches long subtends a certain arc; find the chord of half this arc.

Third division 11 Show how to construct a triangle having given the base, altitude and vertical angle.

12 Show how to construct a circumference which shall have a given radius and shall be tangent to two given oblique lines.

13 The common chord of two intersecting circles is MN ; if MA and MB are diameters of their respective circles, prove that AB will pass through N .

14 Prove that in a rhomboid the sum of the squares of the sides is equal to the sum of the squares of the diagonals.

15 Prove that the area of a trapezoid is equal to the product of one of the legs and the distance from this leg to the middle point of the other leg.

High School Department

177TH EXAMINATION

PLANE GEOMETRY

Wednesday, March 25, 1903—9.15 a. m. to 12.15 p. m., only

Answer eight questions but no more, including at least one from each of the three divisions. If more than eight are answered only the first eight answers will be considered. Draw carefully and neatly each figure in construction or proof, using letters instead of numerals. Arrange work logically. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

First 1 Prove that if two straight lines are parallel to a division third straight line they are parallel to each other.

2 Prove that parallel chords intercept equal arcs on a circumference.

3 Prove that two triangles whose sides are respectively proportional are similar.

4 Prove that the product of the segments of a chord drawn through a fixed point in a circle, is constant in whatever direction the chord is drawn.

5 Complete and demonstrate the following: the area of a regular polygon is equal to . . .

Second 6 The perimeter of a square is 36 inches; find the division area of the circumscribing circle.

7 The side of an equilateral triangle is a ; find the altitude of a similar triangle six times as large as the given triangle.

8 A rhombus is formed by two radii and two chords of a circle whose radius is 10 inches; find the area of the rhombus and the number of degrees in each of its angles.

9 The bases of a trapezoid are 8 inches and 12 inches respectively, the angles at one base are each 60° ; find the area of the trapezoid.

10 Find the length, between the points of tangency, of the common exterior tangent to two tangent circles whose diameters are respectively 8 inches and 12 inches.

Third 11 Show how to construct a triangle when the alti- division tude and the angles at the base are given.

12 Show how to construct a common tangent to two given circumferences not tangent.

13 Prove that an angle formed by two tangents is the supplement of the angle formed by radii drawn to the points of contact.

14 Prove that the sum of the three perpendiculars drawn from any point within an equilateral triangle to the sides is equal to the altitude of the triangle.

15 Prove that the median of a circumscribed trapezoid is equal to $\frac{1}{2}$ the perimeter of the trapezoid.

High School Department

178TH EXAMINATION

PLANE GEOMETRY

Wednesday, June 17, 1903—9.15 a. m. to 12.15 p. m., only

Answer eight questions but no more, including at least one from each of the three divisions. If more than eight are answered only the first eight answers will be considered. Draw carefully and neatly each figure in construction or proof, using letters instead of numerals. Arrange work logically. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

First division 1 Prove that if two parallel lines are cut by a third straight line, the sum of the two interior angles on the same side of the transversal is equal to two right angles.

2 Prove that through three points not in a straight line one circumference and only one can be drawn.

3 Complete and demonstrate the following: an angle formed by two tangents is measured by . . .

4 Prove that if a straight line divides two sides of a triangle proportionally, it is parallel to the third side.

5 Complete and demonstrate the following: the area of a rectangle is equal to . . .

Second division 6 The legs of a right triangle are 21 inches and 28 inches respectively; find (a) the segments of the hypotenuse made by the bisector of the right angle, (b) the altitude on the hypotenuse.

7 The areas of three concentric circles are in the ratio of 1, 2 and 3; the diameter of the largest circle is 24 inches. Find the diameter of *each* of the other circles.

8 A tangent and a secant are drawn to a circle from an exterior point; the tangent is 14 inches long and the whole secant is 4 times its external segment. Find the length of the secant.

9 Find the area of an equilateral triangle inscribed in a circle whose radius is $2\sqrt{3}$.

10 Find the number of degrees in each of the two arcs of a circle, intercepted by two tangents forming an angle of 75° .

Third division 11 Show how to construct a circle of given radius, tangent to a given circle and to a given line.

12 What is the locus of the vertex of a triangle having a constant base and a constant vertical angle? Give proof.

13 Two circles are tangent at *A*; prove that secants drawn through *A* are cut proportionally by the circumferences.

14 Prove that the bisector of an angle formed by two tangents to a circle passes through the center of the circle.

15 Prove that if one of the legs of an isosceles triangle is produced through the vertex by its own length, the line joining the extremity of the line produced, to the nearer end of the base is perpendicular to the base.

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176TH EXAMINATION

SOLID GEOMETRY

Friday, January 30, 1903—1.15 to 4.15 p. m., only

Answer eight questions but no more, including at least two from each division. If more than eight are answered only the first eight answers will be considered. Draw carefully and neatly each figure in construction or proof, using letters instead of numerals. Arrange work logically. Division of groups is not allowed. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

First division 1 Define trihedral angle, face angle, pyramid, division trix, spheric segment.

2 Prove that through a given point in a plane one perpendicular to that plane can be drawn and only one.

3 Prove that if two angles not in the same plane have their sides respectively parallel and lying in the same direction, they are equal and their planes are parallel.

4 Give the formula for the volume of (a) a cylinder, (b) a frustum of any pyramid. Derive one of these formulas.

5 Complete and demonstrate the following: a truncated triangular prism is equivalent to the sum of three pyramids. . . .

6 Prove that in an isosceles spheric triangle, the angles opposite the equal sides are equal.

NOTE—Use π instead of its approximate value 3.1416.

Second division 7 Find the locus of points in space equidistant from four given points not all in the same plane.

8-9 A triangle whose sides are respectively 15 inches, 13 inches and 4 inches, revolves about its shortest side as an axis; find the volume of the solid generated by the revolving triangle.

10 The volume of a regular hexagonal prism is $81\sqrt{3}$; the altitude of the prism is equal to the longest diagonal of the base. Find the total area of the prism.

11 The altitude of the frustum of a cone of revolution is 12 inches; the radii of the bases are respectively 5 inches and 14 inches. Find the total area of the frustum.

12 Find the volume of a hemisphere whose entire surface equals S .

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178TH EXAMINATION

SOLID GEOMETRY

Friday, June 19, 1903—1.15 to 4.15 p. m., only

Answer eight questions but no more. If more than eight are answered only the first eight answers will be considered. Draw carefully and neatly each figure in construction or proof, using letters instead of numerals. Arrange work logically. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

First division 1 From a point in a perpendicular to a plane, lines are drawn to the plane; prove that lines meeting the plane at equal distances from the perpendicular are equal, and of two lines meeting the plane at unequal distances from the perpendicular, that which meets it at the greater distance is the greater.

2 Prove that every point in a plane which bisects a diedral angle is equidistant from the faces of the angle.

3 Prove that the sections of a prism made by parallel planes cutting all the lateral edges, are equal polygons.

4 Complete and demonstrate the following: the volume of any parallelepiped is equal to . . .

5 Complete and demonstrate the following: the lateral area of a cone of revolution is equal to . . .

6 Complete and demonstrate the following: the area of any spheric polygon is equal to . . .

NOTE—Use π instead of its approximate value 3.1416.

Second division 7 The altitude of a cone and the diameter of its base are each equal to a , the diameter of a sphere; find the ratio of the volumes of the cone and sphere.

8 Find the entire surface and the volume of a regular tetraedron inscribed in a cone the radius of whose base is 10 inches.

9 The lateral area of a right cylinder is 48π ; the volume of the cylinder is 96π . Find the radius and the height of the cylinder.

10 An isosceles trapezoid revolves about its longer base as an axis; the bases are respectively 14 inches and 8 inches, the legs each 5 inches. Find the surface of the solid generated.

11 The radius of a sphere is 20 inches; find the area of a section made by a plane 5.6 inches from the center of the sphere.

12 Prove that a line parallel to each of two intersecting planes is parallel to their intersection.

High School Department

176TH EXAMINATION

TRIGONOMETRY

Thursday, January 29, 1903—9.15 a. m. to 12.15 p. m., only

Answer eight questions but no more. Include at least three from the third division if credit is desired for both plane and spheric trigonometry. If more than eight are answered only the first eight answers will be considered. A , B and C represent the angles of a triangle, a , b and c the opposite sides. In a right triangle C represents the right angle. Each complete answer will receive $12\frac{1}{2}$ credits. Papers entitled to 75 or more credits will be accepted.

Give special attention to arrangement of work.

First division $\times$ 1 The three sides of a triangle are 11 feet, 7 feet and 6 feet respectively; write the algebraic sign of each of six functions of the largest angle.

$\star$ 2 Using the table of logarithms of numbers but not the other tables, find to three decimal places $\sin 22^\circ 30'$, $\cos 22^\circ 30'$ and $\tan 22^\circ 30'$.

$\checkmark$ 3 Write six independent formulas each expressing the value of one function of an angle in terms of one other function of the same angle.

4 Find the ratio of m to n when (a) $\log m + \log \frac{1}{n} = 0$, (b) $\log m - \log n = 3$. Find the value of x and of y when $\log x + \log y = 5$, $\log x - \log y = -1$

Second division 5 Given $A = 73^\circ 24'$, $b = 180$ feet, $c = 325$ feet; find B , C and a .

6 Prove that in any plane triangle $\frac{a+b}{a-b} = \frac{\tan \frac{1}{2}(A+B)}{\tan \frac{1}{2}(A-B)}$

7 In a plane triangle the interior angle A is $28^\circ 30'$ and the side b is 85 feet; find the numeric limits of the side a , so that there may be (a) one solution, (b) two solutions, (c) no solution.

8 In a plane triangle $a = 256$ feet, $b = 238$ feet, $c = 124$ feet; find A , B and C .

Third division 9 Prove that the hypotenuse of a right spheric triangle is (a) less than 90° if the two legs are in the same quadrant, (b) greater than 90° if the legs are in different quadrants.

10 Given in a right spheric triangle $b = 155^\circ 25'$, $a = 29^\circ 40'$; find c , A and B .

11 Given in an oblique spheric triangle $A = 50^\circ 10'$, $B = 58^\circ 8'$, $a = 62^\circ 40'$; find two possible values for each of the other parts.

12 Find the distance on the arc of a great circle from New York city, latitude $40^\circ 43'$ north, longitude 74° west, to Mexico, latitude $19^\circ 25'$ north, longitude $99^\circ 5'$ west.

High School Department

178TH EXAMINATION

TRIGONOMETRY

Thursday, June 18, 1903—9.15 a. m. to 12.15 p. m., only

Answer eight questions but no more. Include at least three from the third division if credit is desired for both plane and spheric trigonometry. If more than eight are answered only the first eight answers will be considered. A, B and C represent the angles of a triangle, a, b and c the opposite sides. In a right triangle C represents the right angle. Each complete answer will receive $12\frac{1}{2}$ credits. Papers entitled to 75 or more credits will be accepted.

Give special attention to arrangement of work.

First division 1 Give in terms of functions of a the sine, cosine, tangent, cotangent, secant and cosecant of $180^\circ + a$ and of $180^\circ - a$. [Arrange in tabular form and give algebraic signs.]

✓ 2 Given in a right triangle $\sin A = \frac{7}{15}$; express as common fractions five other functions of A .

3 Show that the mantissa of the logarithm of any set of figures is independent of the position of the decimal point. Given $\log 2.4 = 0.380211$; write the logarithm of 2400 and of .000024.

4 Explain by aid of a diagram the force of the algebraic sign of each of six functions of an angle in the second quadrant.

Second division 5 Given in a right triangle $a = 236$ feet, $B = 43^\circ 25'$; find A , b and c .

6 In a plane triangle $A = 26^\circ$, $B = 122^\circ$, $c = 78$ feet; find a and b .

7 The sides of a plane triangle are 35 feet, 44 feet and 63 feet respectively; find the three angles of the triangle.

8 Indicate the measurements to be taken and the computations to be made by an observer on a level plain, to determine the height of a visible but inaccessible mountain peak and its horizontal distance from him. [Give diagram and all formulas needed.]

Third division 9 Assuming the formula for the value of $\cos a$, prove that in any spheric triangle $\cos A = \sin B \sin C \cos a - \cos B \cos C$.

10 In a right spheric triangle $A = 106^\circ 34'$, $B = 33^\circ 11'$; find a , b and c .

11 In an oblique spheric triangle $A = 104^\circ 30'$, $B = 62^\circ 52'$, $c = 56^\circ 6'$; find a .

12 Find the distance in miles, measured on a parallel of latitude, between Richmond $77^\circ 27'$ west longitude and San Francisco $122^\circ 25'$ west longitude, both cities being $37^\circ 40'$ north latitude. [Assume the radius of the earth to be 4000 miles.]

High School Department

176TH EXAMINATION

ASTRONOMY

Thursday, January 29, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define celestial equator, equinox, hour-circle, declination, right ascension.

2 Compare the Ptolemaic and the Copernican systems of astronomy. State in what respect the Copernican system differs from the system accepted at present.

3 Describe the sun as to (a) size, (b) density, (c) telescopic appearance.

4 Mention the major planets in the order of their size and state the number of satellites of each.

5 Define and illustrate *each* of the following: occultation, transit, inferior conjunction.

6 Distinguish between a sidereal day and a solar day. Explain why the solar days are of unequal length.

7 What is meant by librations of the moon? State the cause of the moon's librations in (a) latitude, (b) longitude.

8 State what is meant by (a) solar ecliptic limits, (b) lunar ecliptic limits. Give the approximate value of each of these limits.

9 Describe the planet Mars as to (a) size, (b) distance from the sun, (c) length of day and year, (d) telescopic appearance.

10 Describe comets as to (a) constituent parts, (b) orbits, (c) physical constitution.

11 Describe the zodiacal light. Give a theory to explain the origin of the zodiacal light.

12 Mention and describe (a) *one* northern circumpolar constellation, (b) *one* equatorial constellation.

13 Describe the construction and explain the operation of the sextant.

14 Assuming the mean distance of the earth from the sun to be 93,000,000 miles and the distance of Jupiter from the sun to be 483,000,000 miles, compute by Kepler's third law the period of Jupiter's revolution around the sun.

15 Describe briefly a method of determining the distance of the sun from the earth.

High School Department

178TH EXAMINATION

ASTRONOMY

Thursday, June 18, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Mention *five* noted astronomers and state the important contributions to astronomic science made by each.

2 Explain why the angle made by the ecliptic with the horizon at any given place varies, while the angle made by the celestial equator with the horizon is constant.

3 Describe a normal sun-spot as to (a) telescopic appearance, (b) motions. Give a theory to account for the formation of sun-spots.

4 Explain by aid of a diagram the difference between a sidereal and a synodic revolution of an inferior planet.

5 State the polar and the equatorial diameter of the earth. Describe some accurate scientific method of determining the size of the earth.

6 Explain why we do not have our greatest heat at the time of the summer solstice nor our greatest cold at the time of the winter solstice.

7 Describe the moon as to (a) size, (b) distance from the earth, (c) length of day, (d) telescopic appearance.

8 Mention the greatest and the least number of solar eclipses that may occur in any given year. Draw a diagram showing the relative positions of the sun, earth and moon, and the paths of the rays of light in an annular solar eclipse.

9 Describe a method of determining the distance of the moon from the earth.

10 Describe the planet Jupiter as to (a) size, (b) density, (c) length of day and of year, (d) satellites.

11 Define a star. Explain *each* of the following: (a) the proper motion of a star, (b) the apparent motion of a star.

12 Mention *three* equatorial constellations that rise in your longitude today between 6 p. m. and midnight. Describe *one* of the constellations mentioned.

13 Distinguish in physical constitution between star-clusters and nebulae. Mention *three* classes into which nebulae are divided according to form.

14 Describe the construction of the object-glass of an achromatic telescope. State the advantages of the achromatic telescope over the simple refracting telescope.

15 The altitude of the sun above the southern horizon as it crosses the meridian of a given place is $58^{\circ} 30'$; the declination of the sun at the time of observation is $11^{\circ} 25'$ north. Find the latitude of the place.

High School Department

175TH EXAMINATION

PHYSICS

Wednesday, September 24, 1902—9.15 a.m. to 12.15 p.m., only

Answer 10 questions but no more; of these 10 questions at least five must be from part 1 in order to receive credit for part 1 and at least five from part 2 in order to receive credit for part 2. Answer 10 questions in all cases, whether credit is desired for either one of the two parts or for both parts. If more than 10 are answered only the first 10 answers will be considered. Give all computations in full. Do not reduce metric to other measures. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

Part 1 1 Define gravitation, cohesion, kinetic energy. Illustrate each.

2 Describe an experiment illustrating crystallization.

3 A mass of 20 kilograms projected downward moves 630 meters in 3 seconds; find (a) its initial velocity, (b) its momentum at the end of the third second. [Make no allowances. Gravity acceleration = 9.8 meters.]

4 Mention and explain *two* uses of the pendulum.

5 A screw whose threads are $\frac{1}{4}$ inch apart vertically, is turned by a lever 3 feet long; find the power which acting on the outer extremity of the lever, will raise a weight of 2 tons. [Make no allowances.]

6 A platinum ball weighs 440 grams in air, 420 grams in water and 404 grams in sulfuric acid; find (a) the volume of the ball, (b) the specific gravity of sulfuric acid.

7 Explain by aid of a diagram the operation of an intermittent (periodic) spring.

8 Mention and define *two* ways by which heat may be transmitted. Illustrate each of the ways mentioned.

9 Explain why sprinkling the floor of a room with water cools the air.

10 A mass of platinum weighing 200 grams is removed from a furnace and placed in 150 grams of water at 0° C.; if the temperature of the water is raised to 30° C., what is the temperature of the furnace? [Specific heat of platinum = .031.]

- Part 2**
- 11 State Ampère's theory of magnetism.
 - 12 Describe *two* different ways by which an insulated metallic body may be electrified.
 - 13 Explain the phenomenon of (a) lightning, (b) thunder.
 - 14 A battery of 8 voltaic cells, each having an electromotive force of 1.3 volts and an internal resistance of .5 ohms, is connected in parallel; the total external resistance of the battery is 16 ohms. Find the current strength of the battery.
 - 15 Describe the construction and explain the operation of *one* of the following: Wheatstone bridge, electric fire-alarm.
 - 16 Explain why the velocity of sound in air varies with the temperature. Compare the velocity of sound in air at 0° C. with the velocity of sound in air at 30° C.
 - 17 Assuming that middle C has 256 vibrations a second, find the number of vibrations of G above.
 - 18 Explain by aid of a diagram the following terms used in relation to a spheric concave mirror: principal axis, principal focus, center of curvature, principal focal length.
 - 19 Describe the construction and explain the operation of the photographer's camera.
 - 20 State the composition of white light. Describe an experiment showing the composition of white light.

PHYSICS

Wednesday, January 28, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more; of these 10 questions at least five must be from part 1 in order to receive credit for part 1 and at least five from part 2 in order to receive credit for part 2. Answer 10 questions in all cases, whether credit is desired for either one of the two parts or for both parts. If more than 10 are answered only the first 10 answers will be considered. Give all computations in full. Do not reduce metric to other measures. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

A laboratory course previously approved by the inspector, with notebook certified by the principal, may receive 20 credits toward the examination in which case only eight questions are to be answered, four from each part as above.

Part 1 1 Distinguish between (a) mass and density, (b) energy and force, (c) evaporation and ebullition.

2 Describe an experiment illustrating the diffusion of gases.

3 State the three laws of motion and illustrate *two* of them.

4 A ball starting from a state of rest on an inclined plane rolls 160 feet in 4 seconds; compute (a) the acceleration of the ball, (b) the space passed over during the third second.

5 A freely movable body is acted on by two forces, one of 15 dynes due west and one of 22 dynes due south; find the magnitude and show by diagram the direction of the force required to maintain equilibrium.

6 Explain fully the operation of a siphon. Use diagram.

7 A cube of metal 5 centimeters on each edge weighs 1.4 kilograms; find (a) the weight of the cube in water, (b) the specific gravity of the metal.

8 State Joule's principle of thermodynamics. Describe an experiment illustrating Joule's principle.

9 Describe a laboratory method of finding the relative thermal (heat) conductivity of metals. Write the following in the order of their thermal conductivity: copper, silver, iron, clay.

10 Define distillation. Describe a laboratory experiment illustrating distillation.

Part 2 11 Describe the magnetic needle, touching on (a) properties, (b) variations and declinations.

12 Show that electrification manifested by insulated conductors electrified by static electricity is of two kinds, opposite in character.

13 Describe some form of dynamo and show how mechanical energy is converted into electric energy by its use.

14 Describe the construction and state the use of an electric transformer.

15 Describe a laboratory experiment illustrating electrolysis.

16 The interval between the observed flash of a cannon and its report is 10 seconds; compute the distance of the cannon from the observer, the temperature being 68° F.

17 A stretched chord 10 feet long vibrates 256 times a second; compute the number of vibrations of a similar chord 6 feet long and of the same tension and diameter.

18 Describe a laboratory experiment illustrating the law of the intensity of light when the illuminated surface is perpendicular to the direction of propagation.

19 Define refraction of light. Give a theory to explain refraction of light.

20 Describe the construction and explain the operation of the spectroscope.

University of the State of New York
High School Department

177TH EXAMINATION

PHYSICS

Wednesday, March 25, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more; of these 10 questions at least five must be from part 1 in order to receive credit for part 1 and at least five from part 2 in order to receive credit for part 2. Answer 10 questions in all cases, whether credit is desired for either one of the two parts or for both parts. If more than 10 are answered only the first 10 answers will be considered. Give all computations in full. Do not reduce metric to other measures. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

A laboratory course previously approved by the inspector, with notebook certified by the principal, may receive 20 credits toward the examination in which case only eight questions are to be answered, four from each part as above.

Part 1 1 Mention and define the property of matter illustrated by *each* of the following: (a) the removal of dust from a carpet by beating, (b) the welding of iron, (c) the elevation of liquids in capillary tubes.

2 State and illustrate the kinetic theory of gases.

3 A body at the surface of the earth weighs 10 pounds. Compute its weight 4000 miles above the earth.

4 Derive the formula for obtaining *each* of the following in respect to bodies falling freely from a state of rest: (a) the velocity at the end of any given second, (b) the space traversed during any particular second.

5 Define center of oscillation. Describe a method of obtaining the center of oscillation of a pendulum.

6 Define friction. Mention (a) *two* things on which friction depends, (b) *two* ways in which friction is generally lessened.

7 Describe an experiment showing that the downward pressure of a liquid at rest is independent of the shape or size of the containing vessel, but is proportional to the depth and the area of the base of the liquid.

8 Explain by aid of a diagram the operation of a common force-pump.

9 If a liter of air at 0° C. is heated to 100° C., what will be its volume, the pressure remaining constant?

10 Explain why a mixture of salt and ice produces a lower temperature than is produced by ice alone.

Part 2 11 Describe a laboratory experiment showing the lines of force of a bar magnet. Make a diagram showing the magnet and the lines of force.

12 Describe the construction and explain the action of the gold-leaf electroscope.

13 Describe an experiment showing the distribution of a charge of static electricity on an insulated ovate (egg-shaped) conductor.

14 Describe the construction and explain the operation of the Blake transmitter.

15 Describe an experiment showing the effect of parallel currents on each other (*a*) when they flow in the same direction, (*b*) when they flow in opposite directions.

16 On what does the pitch of sound depend? Describe an experiment to prove your answer.

17 Mention *one* law in accordance with which chords vibrate. Describe an experiment illustrating the law mentioned.

18 Mention the three kinds of spectra. State the conditions under which each is produced.

19 Make a diagram of some form of refracting telescope, giving the names of the important parts and indicating the paths of the rays of light.

20 What is meant by interference of light? Describe an experiment illustrating interference of light.

University of the State of New York
High School Department

178TH EXAMINATION

PHYSICS

Wednesday, June 17, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more; of these 10 questions at least five must be from part 1 in order to receive credit for part 1 and at least five from part 2 in order to receive credit for part 2. Answer 10 questions in all cases, whether credit is desired for either one of the two parts or for both parts. If more than 10 are answered only the first 10 answers will be considered. Give all computations in full. Do not reduce metric to other measures. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

A laboratory course previously approved by the inspector, with notebook certified by the principal, may receive 20 credits toward the examination in which case only eight questions are to be answered, four from each part as above.

Part 1 1 Define matter. State the molecular theory of the physical constitution of matter.

2 Describe an experiment illustrating surface viscosity of liquids.

3 State the law of mechanics expressing the relations of power and weight and the distance through which they move. Describe the three classes of levers.

4 A ball projected horizontally with a velocity of 48½ feet a second from the top of a tower situated on a level plain, strikes the ground at the end of three seconds; show by diagram the path of the ball and find the height of the tower. [Make no allowances.]

5 State the conditions under which a body will float in water. Find the volume of a body that loses three kilograms of its weight when it is immersed in water.

6 What is meant by the coefficient of friction? Describe a laboratory method of finding the coefficient of friction of motion of pine on pine.

7 State Boyle's (Mariotte's) law and describe an experiment illustrating it.

8 Describe the construction and explain the operation of one of the following: common (not condensing) air-pump, aneroid barometer.

9 State what is meant by the boiling-point of a liquid. Mention *three* conditions that affect the boiling-point of a liquid.

10 Distinguish between thermal capacity and specific heat. Describe a laboratory method of determining the specific heat of mercury.

Part 2 11 Describe the construction and explain the operation of an electromagnet. Mention a practical application of the electromagnet.

12 Describe the construction of an efficient lightning-rod, giving special attention to the ends of the rod. Give a theory to account for the protective effect of a lightning-rod.

13 Write the formula of (a) Ohm's law, (b) Joule's law of energy of electric currents. Explain the meaning of each of the terms used in these formulas.

14 Describe a laboratory method of finding the relative electric conductivity of different metals. Write the following in the order of their electric conductivity: copper, air, iron, water.

15 Describe the construction and explain the operation of some form of galvanometer.

16 Write the formula expressing the relation of the velocity of sound to the density and elasticity of the conducting medium. Compare the velocity of sound in solids with that in liquids. Explain.

17 Define resonance. Describe a laboratory experiment illustrating resonance.

18 Define shadow. Show by aid of a diagram the formation of an umbra and the corresponding penumbra.

19 State the law in accordance with which light is reflected from a polished plane surface and describe a laboratory experiment illustrating this law.

20 Define polarized light. Give a theory to account for the polarization of light.

High School Department

176TH EXAMINATION

CHEMISTRY

Wednesday, January 28, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more; of these 10 questions at least five must be from part 1 in order to receive credit for part 1 and at least five from part 2 in order to receive credit for part 2. Answer 10 questions in all cases, whether credit is desired for either one of the two parts or for both parts. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

A laboratory course previously approved by the inspector, with notebook certified by the principal, may receive 20 credits toward the examination in which case only eight questions are to be answered, four from each part as above.

Part 1 1 Define and illustrate *five* of the following: binary compound, hydrate, base, dyad, compound radical, metal, negative element.

2 What is meant by a solution of a substance? Describe an experiment illustrating (a) a saturated solution, (b) a super-saturated solution.

3 Mention the constituents of water and give their proportions by (a) volume, (b) weight. Compare these constituents as to physical and chemical properties.

4 State and illustrate the law of multiple proportions.

5 Find the percentage composition of H_2SO_4 . How many grams of sulfur dioxide can be set free by the action of 325 grams of sulfuric acid on copper? [Atomic weight of S=32, of O=16.]

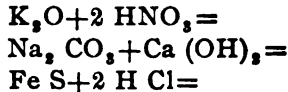
6 Describe *one* of the usual methods of preparing ammonia on a commercial scale. Write the reactions.

7 Describe an experiment illustrating the bleaching properties of sulfur dioxide. Explain.

8 Describe the preparation of potassium hydroxide (hydrate) from potassium carbonate, writing the reaction. Give the physical and the chemical properties of potassium hydroxide.

9 Define cupellation. Describe a process of extracting silver from its ores by cupellation.

10 Complete the following equations, showing the reactions that would take place:



Part 2 11 Distinguish between (a) allotropism and isomerism, (b) efflorescence and deliquescence, (c) hard water and soft water.

12 Mention *three* distinct allotropic forms of carbon. Compare the physical properties of the forms mentioned.

13 Compare the action of carbon and chlorin as disinfecting agents.

14 Give a theory to account for the formation of (a) petroleum, (b) natural gas. ✓

15 Describe a method of preparing acetylene. State the physical and the chemical properties of acetylene.

16 Describe some form of chemical fire-extinguisher, touching on (a) mechanical construction, (b) chemicals used, (c) operation, (d) chemical action.

17 Describe the construction and explain the operation of a Bunsen burner.

18 State the occurrence of phosphorus in nature. Give the physical and the chemical properties of phosphorus.

19 Describe a method of preparing hydrogen arsenid. State the ordinary use of hydrogen arsenid.

20 Describe *one* of the following, touching on (a) production, (b) physical properties, (c) chemical properties, (d) chemical formula: cane-sugar, acetic acid.

High School Department

178TH EXAMINATION

CHEMISTRY

Wednesday, June 17, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more; of these 10 questions at least five must be from part 1 in order to receive credit for part 1 and at least five from part 2 in order to receive credit for part 2. Answer 10 questions in all cases, whether credit is desired for either one of the two parts or for both parts. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

A laboratory course previously approved by the inspector, with notebook certified by the principal, may receive 20 credits toward the examination in which case only eight questions are to be answered, four from each part as above.

Part 1 1 Distinguish between (a) a physical change and a chemical change, (b) a mixture and a chemical compound. Illustrate each.

2 Define valence. State and illustrate the theory of valence.

3 Describe a laboratory experiment showing that the air contains oxygen. Write the reactions.

4 Define acid, salt, base. Give an example of each.

5 Compare the elements of the halogen group as to (a) state (gaseous or otherwise), (b) color, (c) weight, (d) chemical activity.

6 Describe an experiment showing the value of H_2S as a reducing agent. State the property of H_2S to which its value as a reducing agent is due.

7 Describe a method of manufacturing matches. Write *two* reactions that take place when a common friction match is ignited.

8 Describe the manufacture of glass. Distinguish in composition between window-glass and green bottle-glass.

9 Mention the constituent metals of *five* of the following alloys: bell-metal, pewter, brass, soft solder, German silver, type-metal, Babbitt metal.

10 Write the chemical name of each of *five* of the following: white lead, blue vitriol, calomel, gypsum, saltpeter, caustic potash, copperas.

Part 2 11 Explain the instability of nitrogen compounds.
Describe an experiment illustrating the instability of nitrogen compounds.

12 Mention *two* great natural sources of CO_2 . Explain why the percentage of CO_2 in the air remains nearly uniform.

13 Mention the principal products obtained by the destructive distillation of bituminous coal.

14 Distinguish between a carbohydrate and a hydrocarbon. Mention *two* important groups of carbohydrates.

15 Describe the formation of marsh-gas in nature. Give the physical and the chemical properties of marsh-gas.

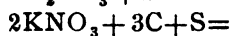
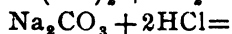
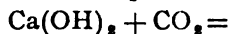
16 Find the weight of each of the products of combustion when 26 grams of ordinary alcohol ($\text{C}_2\text{H}_6\text{O}$) are burned. [Atomic weight of C=12, of O=16.]

17 Distinguish in composition between water of permanent hardness and that of temporary hardness, and state how each may be softened.

18 Describe a method of preparing phosphorus. Write the reaction or reactions.

19 Write the graphic formula of hydrogen arsenid. Write the reaction for the complete combustion of hydrogen arsenid.

20 Complete the following equations, showing the reactions that would take place:



High School Department

176TH EXAMINATION

GEOLOGY

Friday, January 30, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

- 1 Define *five* of the following: detritus, syncline, dip, outcrop, placer, tufa, paleontology.
- 2 Describe *four* kinds of non-metamorphic calcareous rock.
- 3 Mention the characteristics of *each* of the following: hematite, shale, hornblende, granite, lignite.
- 4 Describe the formation of (a) laccoliths, (b) dikes. Use drawings.
- 5 Describe the origin and development of a mountain range.
- 6 Describe the formation of *two* kinds of veins classified according to the source of heat.
- 7 Give *two* reasons why aquatic animals were the principal animals that contributed to rock formation.
- 8 Describe the origin, course and effects of subterranean waters.
- 9 State the geologic effect of (a) freezing water, (b) deformation. Explain.
- 10 Describe the formation of soil.
- 11 Describe the life of the Upper Silurian era.
- 12 Describe the Hamilton formation as to (a) kind of rock, (b) places of occurrence.
- 13 Give an account of observations made during a class excursion with your teacher, illustrating (a) dynamic geology, (b) historical geology.
- 14 Describe the evolution of the horse as indicated by fossils found in lake deposits.
- 15 Mention *one* economic use of *each* of the following: marl, graphite, kaolin, mica, gypsum.

High School Department

178TH EXAMINATION

GEOLOGY

Friday, June 19, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define structural geology, dynamic geology, physiographic geology, economic geology, historic geology.

2 Describe the development of stratification.

3 Mention the characteristics of *each* of the following: calcite, kaolin, syenite, mica, quartz.

4 Describe the formation of (a) synclines, (b) basaltic columns. Make a drawing of each.

5 Describe earthquakes as to (a) causes, (b) effects, (c) geographic distribution.

6 Describe the geologic effect of (a) oxygen, (b) carbon dioxid. Illustrate in each case.

7 Describe drift sand-hills as to (a) conditions of formation, (b) manner of stratification.

8 Compare anthracite coal with bituminous coal as to (a) chemical composition, (b) physical properties.

9 State the geologic effect of tidal currents. Give illustrations.

10 Explain (a) how regelation facilitates the movement of glaciers, (b) how change of temperature produces geologic changes.

11 Describe the development of an atoll.

12 Describe the rocks of the Chemung period.

13 Give *four* general characteristics of the Carboniferous era.

14 Give examples of relics indicating the presence of pre-historic man in (a) Europe, (b) America.

15 What is meant by the imperfection of the geologic record? Illustrate from (a) geologic conditions, (b) biologic conditions.

*University of the State of New York***High School Department****175TH EXAMINATION****PHYSICAL GEOGRAPHY**

Thursday, September 25, 1902 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

- 1 Define *five* of the following: estuary, undertow, mirage, perihelion, silt, thermograph, stalagmite.
- 2 Describe Foucault's experiment to prove the rotation of the earth.
- 3 Describe the secondary mountain systems of South America.
- 4 Trace the course of isotherm 40° north around the globe and account for its deviation from parallels of latitude.
- 5 State the conditions under which the following are formed: halos, coronas.
- 6 Compare the topography of the ocean bed with that of the land surface of the earth.
- 7 Account for the great difference of rainfall on the west coast and on the east coast of Scandinavia.
- 8 State the probable effect of (a) a great decrease of the amount of carbon dioxid in the air, (b) a great increase of the amount of carbon dioxid in the air.
- 9 Describe the formation of (a) an alluvial plain, (b) a peneplain. Give a noted example of each.
- 10 Describe the origin and development of an Alpine glacier.
- 11 Describe the origin and development of a valley in (a) a mountain, (b) a plain.
- 12 Describe the predominant mountain system of Europe.
- 13 Give the location and state the cause of the desert belt of the eastern continent.
- 14 In what portion of North America does the most rain fall? Explain.
- 15 Why is the New England plateau not well adapted to grain farming?

High School Department

176TH EXAMINATION

PHYSICAL GEOGRAPHY

Thursday, January 29, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define *five* of the following: glacier, delta, isotherm, fiord, equinox, barometer, meteorology.

2 Describe the land masses of the earth as to (a) distribution, (b) relative size.

3 Explain the formation of (a) land-breezes, (b) sea-breezes.

4 Suggest an experiment to illustrate formation of dew. Explain.

5 Describe the origin and growth of a coral island.

6 How is the climate of a place affected by (a) proximity of a large body of water, (b) proximity of a mountain chain? Give illustrations.

7 Account for the brilliant colors of the sky at sunset.

8 Discuss tides as to (a) cause, (b) effect.

9 Account for the formation of (a) meanders (bends) in streams, (b) cañons. Give examples.

10 Describe the conditions necessary for a flowing artesian well. Use a drawing to illustrate.

11 Describe the formation of each of *two* kinds of moraines.

12 Compare the climate of central Labrador with the climate of North Cape. Explain.

13 Give an account of observations of a physiographic nature made during a class excursion with your teacher.

14 Describe in detail the physiographic features that make New York the Empire State. Give illustrations.

15 State the influence on the distribution of animals of (a) water barriers, (b) mountain ranges. Give illustrations.

Or

Submit *either* a weather chart made, during the term, from personal observations *or* a weather map made, during the term, from data provided for you.

University of the State of New York

High School Department

177TH EXAMINATION

PHYSICAL GEOGRAPHY

Thursday, March 26, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

- 1 Describe each of the mathematical zones as to (a) location, (b) width.
- 2 Construct a diagram showing the inclination of the earth's axis to the plane of its orbit.
- 3 What are isotherms? Between what isotherms does the United States lie?
- 4 Describe the doldrums (equatorial calms) as to (a) cause, (b) location, (c) extent.
- 5 Describe the stratus cloud as to (a) cause, (b) form, (c) time of occurrence.
- 6 Mention *two* arid regions of the Western continent and give the cause of the aridness of each region.
- 7 Describe the course of (a) the north equatorial current of the Atlantic, (b) the south equatorial current of the Atlantic.
- 8 By means of a diagram indicate with regard to a waterfall (a) origin and growth, (b) development into a series of waterfalls (cascades), (c) change to rapids. Explain.
- 9 Describe the western half of northern Asia as to (a) physiographic features, (b) climatic conditions, (c) kind of life.
- 10 Mention *two* great classes of islands grouped according to their method of formation. Give an example of each class.
- 11 Assume that an area of high barometer is moving across the United States; state the probable weather conditions that will prevail along its course.
- 12 Explain in detail the formation of (a) a rainbow, (b) a mirage.
- 13 What is the influence of altitude on plant life? Illustrate from the plant life on high mountains.
- 14 Account for the marked difference between the winter climate of New York city and that of Naples, though both are in the same latitude.
- 15 Mention *two* extensive industrial regions of the United States and show their dependence on physiographic conditions.

Or

Submit a weather map or chart made by you during the term.

High School Department

178TH EXAMINATION

PHYSICAL GEOGRAPHY

Thursday, June 18, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define *five* of the following: ecliptic, acclimation, drumlin, estuary, fauna, sirocco, talus.

2 Describe the two principal motions of the earth and state the effect of each motion on the physical condition of the earth.

3 State the effect of the rotation of the earth on the direction of the wind in the northern hemisphere. Explain.

4 What is the weight of a cubic foot of air at sea-level? Why does the density of air vary?

5 Account for (a) the blue color of the sky, (b) the aurora borealis.

6 Describe the course of (a) the north equatorial current of the Pacific, (b) the south equatorial current of the Pacific.

7 Mention the characteristics of (a) a young river system, (b) an old river system.

8 Describe the great plain of central United States as to (a) origin, (b) climate, (c) vegetation, (d) industries, (e) extent.

9 State the conditions necessary for the formation of (a) sand bars, (b) alluvial fans.

10 Why is the summer of North Africa so much warmer than regions of the New World in the same latitude?

11 Suggest an experiment to show convection. What climatic phenomena does the experiment illustrate?

12 Give a full account of observations of a physiographic nature made during a class excursion with your teacher.

13 Account for the prevalence of dense fog off the banks of Newfoundland.

14 Distinguish between physiographic and climatic barriers to the dispersal of animal life over wide areas. Mention the most important of these barriers and give *one* illustration each from plant and animal life.

15 Explain how the physical characteristics of Great Britain have tended to promote or to retard the material prosperity of that country.

Or

Submit *either* a weather chart made from personal observations during the term *or* a weather map made under the direction of the teacher from data provided.

University of the State of New York

High School Department

175TH EXAMINATION

BOTANY

Tuesday, September 23, 1902—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define *five* of the following: *ecology, monoecious, hilum, panicle, mycelium, taxonomy, gymnosperm.*

2 Describe the structure of the seed of the morning-glory as to (a) seed-coat, (b) endosperm, (c) embryo.

3 Describe the germination and early growth of the horse-chestnut. Use drawings to illustrate.

4 Suggest an experiment to demonstrate the relation of temperature to germination.

5 Explain how leaf arrangement is such as to secure the best possible exposure to air and light. Illustrate from the horse-chestnut.

6 Describe all the parts of a typical leaf.

7 Make a diagram showing the arrangement of parts in a hypogynous flower. Give an example of such a flower.

8 Suggest an experiment to illustrate longitudinal tissue tension in plants.

9 Describe *two* ways in which new cells are formed.

10 Mention the conditions necessary for successful grafting.

11 Describe (a) the inflorescence of the elm, (b) the fruit of the elm.

12 Describe *one* of the following flowers as to (a) inflorescence, (b) calyx, (c) corolla, (d) stamens, (e) pistil: catnip, knotweed, portulaca.

13 From observations made, mention the kind of plants that first gain foothold in abandoned places. Give reason.

14 Describe by aid of drawings *two* plant tissues that you have examined with a compound microscope.

15 Using examples show (a) how individual plants are related to species, (b) how species is related to genus.

High School Department

176TH EXAMINATION

BOTANY

Tuesday, January 27, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

A laboratory course previously approved by the inspector, with notebook certified by the principal, may receive 20 credits toward the examination in which case only eight questions are to be answered.

1 Define *five* of the following: angiosperm, legume, raceme, anther, cambium, cryptogam, diecious.

2 Make a drawing of a maple twig, showing leaf arrangement. What fraction indicates the arrangement?

3 What is meant by veneration? Mention *two* important functions of veneration.

4 Describe *two* forms of determinate inflorescence. Give an example of each form.

5 Suggest an experiment to illustrate the rise of sap in leaves.

6 Describe the inflorescence of *each* of the following: shepherd's purse, wild carrot. Illustrate by drawings.

7 Classify fruits as to composition. Give an example of each class.

8 In what parts of the plant and under what conditions is starch formed?

9 Describe (a) the inflorescence of wheat, (b) the method of pollination of wheat.

10 Mention *four* processes involved in plant physiology.

11 Mention the principal modifications of form and function that occur in roots.

12-13 Compare the flower of the nasturtium with the flower of the strawberry, indicating the position of the floral parts of each. Use drawings to illustrate.

14 Describe the structure, method of reproduction and habits of *one* of the algae that you have studied. Illustrate by drawings.

15 Mention *two* methods by which self-pollination in perfect flowers is prevented. Give an example of each.

University of the State of New York

High School Department

178TH EXAMINATION

BOTANY

Tuesday, June 16, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

A laboratory course previously approved by the inspector, with notebook certified by the principal, may receive 20 credits toward the examination in which case only eight questions are to be answered.

- 1 Define *five* of the following: osmosis, ecology, hypogynous, fruit, cotyledon, plumule, bacteria.
- 2 Describe the process of germination of Indian corn. Use drawings to illustrate at least *two* stages of its early growth.
- 3 Make a drawing of an elm twig, indicating the leaf arrangement. What fraction indicates the arrangement?
- 4 Discuss the relation of color and odor of flowers to cross-fertilization. Give examples.
- 5 Mention *two* forms of indeterminate inflorescence and give an example of each form.
- 6 Give the name and state the function of each part of (a) the pistil, (b) the stamen.
- 7 Suggest an experiment to show the tracts through which liquids rise in stems.
- 8 Mention *three* classes of dehiscent fruits and give an example of each class.
- 9 Suggest an experiment to demonstrate the presence of proteid matter in seeds.
- 10 Mention the four ways by which dispersion of seeds is effected. Give examples.
- 11 Make (a) a cross section (diagram) of an apple blossom, (b) a longitudinal section of an apple blossom.
- 12 Describe the flower of the adder's tongue as to kind of inflorescence and parts of the flower.
- 13 Describe the method of reproduction in ferns.
- 14 Make drawings of *two* microscopic plant tissue mounts that you have examined.
- 15 What is meant by survival of the fittest? Illustrate from the plant world.

High School Department

176TH EXAMINATION

ZOOLOGY

Wednesday, January 28, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted. A laboratory course previously approved by the inspector, with notebook certified by the principal, may receive 20 credits toward the examination in which case only eight questions are to be answered.

1 Define *five* of the following: amphibia, cilia, diptera, protoplasm, environment, metabolism, oviparous.

2 Describe the life-history and habits of honeybees.

3 Make a drawing of a lateral half of a grasshopper, indicating parts.

4 Make a drawing of a starfish, indicating all the external parts.

5 Describe (*a*) complete metamorphosis, (*b*) incomplete metamorphosis. Give an example of each.

6 From observations made in dissection describe the organs of circulation of the crayfish or the lobster.

7 From observations made in dissection, describe the digestive organs of a mussel or a clam.

8 State how *each* of the following is specially adapted by structure to perform its function: foot of a mussel, wing of a bird.

9 Describe the structure of the carapace of a turtle. Make a drawing of a lateral half of the carapace.

10 Describe the skeleton of a cat.

11 Give with reference to *each* of the following (*a*) method of obtaining food, (*b*) kind of food obtained: sponge, moth, earthworm, frog.

12 Mention the principal points as determined by increasing complexity of structure that assign beetle to a higher place in the scale of life than a starfish; a starfish to a higher place than a hydra.

13 Give *two* illustrations of analogies existing between organs of different animals.

14 Describe, by aid of drawings, *two* mounts that you have examined with a compound microscope.

15 Show, using examples, (*a*) how orders are related to classes, (*b*) how classes are related to branches.

University of the State of New York

High School Department

178TH EXAMINATION

ZOOLOGY

Wednesday, June 17, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

A laboratory course previously approved by the inspector, with notebook certified by the principal, may receive 20 credits toward the examination in which case only eight questions are to be answered.

1 Define *five* of the following: clitellum, telson, chitin, trochanter, metabolism, plastron, operculum.

2 Make a drawing of (a) the mesothorax of a beetle, showing appendages, (b) the metathorax of a beetle, showing appendages, (c) the first maxilla of a crayfish.

3 From observations made in dissection, describe the organs of digestion of a crayfish as to (a) form and structure, (b) position in the body.

4 Describe the development and function of the capsules of an earthworm.

5 State with reference to *each* of the following (a) kind of food, (b) method of securing food: amoeba, hydra, beetle, starfish, clam.

6 From observations made in the dissection of a mussel, describe (a) the mantle, (b) the relative position of the parts of the heart.

7 From observations made in dissection, draw the brain of a frog, indicating each part.

8 Compare the grasshopper with the butterfly as to (a) wings, (b) mouth parts, (c) larvae, (d) legs, (e) method of respiration.

9 Trace the development of the circulatory system by describing its phases as manifested in the starfish, beetle, mussel, frog and bird.

10 Explain how *each* of the following is specially adapted to perform its work: foot of the mussel, teeth of the snake.

11 Describe the development, early life and habits of the crayfish.

12 Compare the bee with the spider as to (a) mouth parts, (b) legs, (c) eyes, (d) development, (e) food.

13 Mention the specific characteristics that assign (a) a beetle to its order, (b) a honeybee to its order.

14 Mention (a) *two* illustrations of homology between organs not analogous, (b) *two* illustrations of analogy between organs not homologous.

15 Show, using at least *two* examples in each case, (a) how orders are related to classes, (b) how classes are related to orders.

High School Department

175TH EXAMINATION

PHYSIOLOGY AND HYGIENE

Wednesday, September 24, 1902 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define *five* of the following: epithelium, ptomain, cochlea, chyle, peritoneum, peptone, diastole.

2 Describe the structure of (a) the pharynx, (b) the esophagus.

3 Compare the digestibility of the following foods: raw oysters and stewed oysters; roasted veal and fried veal; roasted mutton and broiled mutton; bean soup and barley soup.

4 Make a drawing of the alimentary canal, indicating the various parts.

5 Describe the digestion, absorption and assimilation of sugar.

6 Describe the red blood-corpuscles as to (a) structure, (b) size, (c) function.

7 Mention *two* forces that cause the onward flow of the blood in the veins.

8 State the effect of the use of tobacco on (a) digestion, (b) respiration. Explain.

9 Describe the mechanism of breathing.

10 Describe the coats of the brain.

11 Describe the structure of the kidneys.

12 State the effect of the habitual use of alcoholic drinks on (a) the heart, (b) the vocal cords. Explain.

13 Give the distribution and the principal function of *each* of the following: (a) 7th pair of cranial nerves, (b) 10th pair of cranial nerves.

14 Describe the structure and state *one* function of *each* of the following: (a) the retina, (b) the choroid, (c) the sclerotic, (d) the iris.

15 Mention an antidote for *each* of the following and suggest treatment of poisoning induced by each: sulfuric acid, arsenic.

University of the State of New York
High School Department

176TH EXAMINATION

PHYSIOLOGY AND HYGIENE

Wednesday, January 28, 1903 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define *five* of the following: choroid, lacteal, pleura, capillary, steapsin, ventricle, protoplasm.

2 Describe the structure and state the function of tendons.

3 Mention *two* important functions of perspiration. State how the skin is adapted by structure to perform the function of perspiration.

4 Mention the principal use of water to the body. Of what per cent of water is the body composed?

5 State the effect of alcohol on the stomach. Explain.

6 State the kind of food substance on which *each* of the following acts: saliva, gastric juice, amyllopsin, trypsin, intestinal juice.

7 Describe the absorption and assimilation of fat.

8 Give the composition of blood. State the importance of the power of blood to coagulate.

9 Describe the portal circulation.

10 State the effect of tobacco on the lungs. Explain.

11 Describe the structure of the bronchi. Use drawing to illustrate.

12 Mention the principal functions of the spinal cord.

13 Make a diagram of a cross-section of the eye, indicating the various parts.

14 Give directions for the immediate treatment of (a) a burn, (b) a sprain.

15 Suggest an experiment to show the presence of carbonic acid gas in expired air.

High School Department

177TH EXAMINATION

PHYSIOLOGY AND HYGIENE

Wednesday, March 25, 1903 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

- 1 Define *five* of the following: plasma, amylopsin, cornea, microbe, anatomy, serum, mesentery.
- 2 Describe the changes that take place in bones from childhood to old age.
- 3 Discuss the relative merits of the following kinds of exercise: walking, running, jumping, skating, rowing.
- 4 Mention the three great classes of food. Give an example of *one* food under each class.
- 5 Give (*a*) the composition of saliva, (*b*) the function of saliva.
- 6 Mention the principal minerals found in food and state the use to the body of each mineral substance mentioned.
- 7 Describe the structure and state the function of the lacteals.
- 8 State the effect of the use of alcoholic drink on (*a*) the brain, (*b*) the peristaltic action of the stomach.
- 9 Give the location and state the function of (*a*) the aorta, (*b*) the pulmonary artery.
- 10 Draw an outline of the organs of respiration showing larynx, trachea, bronchial tubes and their branches.
- 11 Describe the production of heat in the body.
- 12 Describe the internal ear (labyrinth).
- 13 Mention the hereditary effects resulting from the excessive use of alcoholic drink.
- 14 Mention the best *three* methods of destroying disease germs outside of the body.
- 15 Suggest an experiment to illustrate the action of the heart, showing how it pumps the blood in only one direction.

High School Department

178TH EXAMINATION

PHYSIOLOGY AND HYGIENE

Wednesday, June 17, 1903 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

- 1 Define *five* of the following: larynx, hemoglobin, pancreas, cell, periosteum, retina, systole.
- 2 Describe the manner in which the skull articulates with the spine.
- 3 State the effects of respiration on (a) the blood, (b) the air in the lungs.
- 4 Describe the process of the digestion of a meal of pork and beans.
- 5 Give the name of the digestive fluid secreted by *each* of the following: stomach, mouth, liver, pancreas, intestine.
- 6 Give with reference to the capillaries (a) their structure, (b) their function.
- 7 Give the primary and the secondary effects of the excessive use of alcoholic drink on the capillaries of the lungs.
- 8 Describe the cavities of the heart. Make a drawing of a vertical section of the heart, showing the relative position of the cavities.
- 9 What is the pulse? Give the average number of beats a minute in (a) adults, (b) children.
- 10 State what physiologic changes take place in catching cold in the throat.
- 11 State the effect on the kidneys of the habitual use of alcoholic drink. Why does this effect on the kidneys disturb the health of the whole system?
- 12 State the functions of the sympathetic system.
- 13 Mention (a) *two* diseases often acquired from drinking polluted water, (b) *two* methods of purifying water.
- 14 Give directions for first treatment of a person suffering from asphyxia induced by inhaling gas from a coal-stove.
- 15 Suggest an experiment to demonstrate dialysis (osmosis). Why is dialysis important to the system?

High School Department

176TH EXAMINATION

GEOGRAPHY

Thursday, January 29, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define *each* of the following and give the name and location of a particular example of each: mountain range, peninsula, delta, strait, sound.

2 From what line is longitude measured? What is the greatest possible longitude? From what line is latitude measured? What is the greatest possible latitude?

3 Mention the five grand divisions of the land surface of the earth in order of size. Mention the five oceans in order of size.

4 State *five* substances that are extensively used as fuel and mention a locality where each is produced.

5 Describe the cultivation of sugar-cane and mention *three* localities where it is extensively produced. What conditions of soil and climate favor the growth of sugar-cane?

6 State *five* forms of mineral wealth found in New York state and mention a locality where each is found.

7 Mention *two* important canals in New York state. State where each canal starts and ends. Why are canals of value?

8 Give the names of *two* railways leading from the Mississippi valley to the Pacific. Mention, with location, *two* cities on each of these railways.

9 Give the name and location of each of *five* important cities east of the Mississippi river and south of the latitude of Washington. State an important fact concerning each.

10 Give the location of *each* of the following and state *one* important fact concerning each: Mt Pelée, Isthmus of Panama, Strait of Magellan, Mt Washington, Island of St Thomas.

11 Mention *two* important rivers of France, *two* of Germany and *one* of England. State in what direction each flows and give the name of *one* city situated on each.

12 Mention a locality where fishing is extensively carried on as a business. State what kinds of fish are caught in the locality mentioned and how they are prepared for market.

13 Give the name and the location in Africa of *each* of the following: *three* countries, *two* important lakes, *two* rivers, *three* cities.

14 Mention *three* important vegetable products not produced in the United States, found in the stores in your locality. Give the name of the country from which each of these articles was probably imported.

15 What and where is *each* of the following: Korea, Ganges, Borneo, Formosa, Thibet?

High School Department

177TH EXAMINATION

GEOGRAPHY

Thursday, March 26, 1903 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define *each* of the following and give the name and location of a particular example of each: mountain system, river basin, desert, plateau, continental island.

2 Give in degrees the width of the torrid zone and explain how this width depends on the inclination of the earth's axis.

3 Give the location of *five* of the following cities in New York state and mention an important fact concerning each city selected: Oswego, Binghamton, Hudson, Little Falls, Lockport, Cortland, Newburg.

4 Mention *one* county of New York noted for the production of grapes, *one* where oil wells exist, *one* in which hop-growing is an important industry, *one* noted for the production of tobacco, *one* noted for oyster-culture.

5 Mention *four* wild animals found in the Rocky Mountain region and describe *one* of them, touching on (a) food, (b) habits, (c) use or danger to man.

6 Mention a boundary river between (a) Maine and New Brunswick, (b) Louisiana and Texas, (c) Indiana and Illinois, (d) Nebraska and Iowa, (e) Oregon and Idaho.

7 Describe *one* of the following: cattle raising on the western plain, orange-culture in California, sponge fisheries of the Bahamas.

8 Mention in order the countries of South America bordering on Bolivia and give the capital of each country mentioned.

9 Give in order the names of the waters that would be traversed by a steamer in going from New York to Hamburg.

10 Mention in order the countries bordering on Switzerland and give the form of government of each.

11 Mention an important seaport of (a) Scotland, (b) France, (c) Holland, (d) Portugal, (e) Austria-Hungary.

12 Mention a country or colony in Africa subject to (a) Great Britain, (b) Germany, (c) Portugal, (d) France, (e) Turkey.

13 State an important article of export from (a) the Philippine islands, (b) Japan, (c) India, (d) Persia, (e) Australia.

14 Write brief accounts of *two* of the following, mentioning place where produced and any interesting facts concerning growth, culture and gathering: coffee, rubber, quinin.

15 Describe *one* of the following, touching on (a) race, (b) houses, (c) dress, (d) peculiar customs: Porto Ricans, Chinese, natives of Java.

High School Department

178TH EXAMINATION

GEOGRAPHY

Thursday, June 18, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define meridian, parallel of latitude, zone, pole of the earth, equator. Illustrate each by a diagram.

2 Show that in the Argentine Republic Christmas comes in the early summer.

3 Mention a section of New York state that is (a) mountainous, (b) comparatively level, (c) noted for fruit raising, (d) noted for production of petroleum, (e) noted for producing iron ore.

4 Mention *two* important seaports of the United States on the Atlantic coast, *one* on the Gulf of Mexico, *two* on the Pacific coast. Give *one* important export from *each* of the ports mentioned.

5 Compare the climate immediately west of the Rocky mountains with that east of the same mountains and give *one* reason for the difference.

6 Mention a region where irrigation is extensively practised. State the advantages of irrigation.

7 Mention *three* states of the Union that are noted as wheat producing states, *three* that are noted as corn producing states, *two* in which oranges are extensively grown, *two* in which coal is mined.

8 Mention *five* important cities on the Mississippi river and give the name of the state in which each is situated.

9 Mention *three* states of South America that are drained in part by the Amazon river. Give the name and location of the capital of *each* of the states mentioned.

10 Which is farther north, St Petersburg or Montreal? Rome or Washington, D. C.? Paris or New York city? Vienna or Chicago?

11 Give the name and location of each of *five* noted volcanoes. Mention *one* noted eruption of recent occurrence.

12 Describe the Suez canal, mentioning (a) location, (b) length, (c) waters connected, (d) nations controlling it, (e) importance to commerce.

13 Write briefly about agriculture in Egypt, touching on water supply, crops cultivated and methods of tilling the ground.

14 Where and what is Manchuria? What important railway passes through Manchuria? What port is at the eastern terminus of this railway?

15 Give the name and location in Africa of each of *three* important rivers and of *two* important lakes.

University of the State of New York

High School Department

176TH EXAMINATION

GREEK HISTORY

[With a short survey of ancient oriental nations]

Tuesday, January 27, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Draw a map of the eastern half of the Mediterranean and its environs and on it show, with name, the location of (a) Aegina, (b) Euboea, (c) Delos, (d) Lesbos, (e) the Hellespont.

2 Mention and describe sources of information regarding the early history of *one* of the following: (a) Egypt, (b) Chaldea.

3 Give an account of *two* of the following: (a) the natural defenses of Egypt, (b) the pyramids, (c) the overflow of the Nile.

4 Give an account of the reign of Darius I.

5 Give the name and location of each of *three* important Greek colonies. State how the Athenian cleruchy differed from an ordinary colony.

6 Give an account of *one* of the following: (a) the reforms of Solon, (b) the tyranny of Pisistratus, (c) the extension of Athenian suffrage under Cleisthenes.

7 Show by map or otherwise the route followed by Xerxes in his invasion of Greece. Mention in order of occurrence *three* important battles that resulted from the invasion of Xerxes.

8 Give an account of *one* of the following: (a) the Plataean league, (b) the services of Themistocles.

9 Write on *one* of the following topics: (a) the Athenian acropolis, (b) *two* noted works of Phidias.

10 Describe *two* conditions or events that are regarded as causes of the Peloponnesian War.

11 Show the connection of *each* of the following with the Peloponnesian War: (a) the plague at Athens, (b) the peace of Nicias, (c) the Sicilian expedition.

12 State *three* important results of Alexander's conquests.

13 Give an account of *one* of the following: (a) the education of an Athenian boy, (b) military tactics introduced by Epaminondas.

14 Define or explain *five* of the following: Areopagite, dicasteries, Dorian invasion, Gordian knot, hoplite, Mycenaean age, Medizing Greeks.

15 Write biographic notes on *five* of the following: Aristides, Aristophanes, Euclid, Herodotus, Hippocrates, Homer, Lycurgus.

High School Department

178TH EXAMINATION

GREEK HISTORY

[With a short survey of ancient oriental nations]

Tuesday, June 16, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Give *two* reasons why the student of Greek history should know something of earlier oriental nations.

2 Show how the world is specially indebted to the Semitic race. What branch of the Semitic race has most influenced European life and thought? Give reasons.

3 Write on *two* of the following: (a) Babylon a commercial center, (b) Egypt the cradle of civilization, (c) the commerce of Phenicia.

4 Give an account of the Persian conquest of Lydia and show the importance of this conquest as it concerned Greece.

5 Draw a map of Greece and on it indicate, with name, the approximate location and boundaries of *each* of the following: Argolis, Attica, Boeotia, Corinthia, Laconia.

6 Give an account of the Dorian invasion and the resulting migrations.

7 Give an account of *one* of the following: (a) classes of society in the Spartan state, (b) attempts of the Spartans to overthrow Athenian democracy previous to 500 B. C.

8 Mention *five* important battles that resulted directly from the Persian invasions of Greece and state an important result of each.

9 Show how the political views of Cimon and Pericles differed and relate the circumstances that led to the ostracism of Cimon.

10 Explain why the Peace of Nicias failed.

11 Give an account of Socrates, touching on (a) personal appearance, (b) occupations, (c) trial and its results.

12 Describe the government imposed on Athens at the close of the Peloponnesian War and show how democracy was restored.

13 Give an account of the growth of Macedonian power under Philip 2 and show how this growth conflicted with Athenian interests.

14 Describe by map or otherwise the march of Alexander the Great from the Hellespont to Persepolis.

15 Write on *two* of the following: (a) Athenian dress, (b) the Greek banquet, (c) the Greek theater and its influence.

ROMAN HISTORY

Tuesday, September 23, 1902 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Mention *three* public works traditionally connected with the period of the kings. Describe *one* of the works mentioned.

2 Define or explain *five* of the following: (a) curule magistrate, (b) dictator, (c) college of heralds, (d) augury, (e) Circus Maximus, (f) Campus Martius, (g) rostra.

3 Give an account of the Samnites, touching on (a) territory, (b) characteristics, (c) wars with Rome.

4 Mention and explain *two* of the steps by which the plebeians gained political equality.

5 Relate the circumstances that led to the Third Punic War.

6 Write on *one* of the following: (a) the Macedonian wars, (b) effects on Rome of the eastern conquests, (c) Cato the Censor.

7 Mention in regard to Pompey (a) the successes that gave him military fame, (b) important reasons that led him to unite with Caesar and Crassus.

8 Compare the conduct of Sulla on his return from the east with the conduct of Julius Caesar after his victories in the Civil War.

9 Write on *two* of the following: (a) the last struggle of the republic, (b) the battle of Actium, (c) the victory of Arminius.

10 Mention *three* important events that occurred between the death of Augustus and the death of Nero. Show the importance of each event mentioned.

11 Were the Roman provinces better governed under the republic or under the empire? Give reasons.

12 Describe *two* of the following: (a) the Colosseum, (b) the Pantheon, (c) Trajan's column.

13 Write on *two* of the following: (a) the extension of Roman citizenship under Caracalla, (b) the Barrack emperors, (c) the character of Constantine the Great.

14 Mention *five* barbarian invasions of Italy that occurred within the Christian era. Give an account of *one* invasion mentioned.

15 Show by map or otherwise the extent of Charlemagne's empire.

High School Department

176TH EXAMINATION

ROMAN HISTORY

Monday, January 26, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

- 1 Describe the mountain systems of Italy and show an influence of each on Roman history.
- 2 Relate the myth of the founding of Rome.

Or

Show why Rome's seven hills favored the growth of a powerful city.

3 Define or explain *five* of the following: client, lictors, patrician, patron, plebeian, Sacred Mount, *rex sacrorum*.

4 State the approximate duration of the period covered by the Punic wars. Show how these wars involved Rome in eastern conquests.

5 Describe the Appian Way, showing important cities connected. Explain how a Roman road was constructed.

6 Show how public lands were (a) acquired, (b) disposed of. Describe the condition of the peasant farmer about 133 B. C.

7 Mention in chronologic order *five* important events that occurred between the death of Caius Gracchus and the return of Sulla from the east.

8 Give an account of the conspiracy of Catiline, covering (a) causes, (b) aims of the conspirators, (c) results.

9 Give a brief account of the steps by which Julius Caesar gained control of the Roman world.

10 State *three* particulars in which the Roman world was benefited by the establishment of the empire.

11 Give an account of the growth of Christianity in the Roman Empire, touching on (a) origin, (b) progress, (c) persecutions, (d) triumph over paganism.

12 Write on the reign of Hadrian, noting at least *three* important particulars.

13 Explain why the reign of Diocletian marks an epoch in the history of the Roman Empire.

14 Describe the treatment accorded the Visigoths by (a) Valens, (b) Theodosius the Great. State results in each case.

15 Describe *one* of the following: (a) the Roman legion in camp, (b) the Roman legion in battle, (c) Roman amusements.

High School Department

178TH EXAMINATION

ROMAN HISTORY

Monday, June 15, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

- 1 Describe *two* important river systems of Italy.
- 2 Give an account of the military reform usually ascribed to Servius Tullius and show how this reform aided the plebeians in securing political rights.
- 3 Relate the circumstances that led to the war with Pyrrhus. Mention conspicuous proofs of military ability shown by the Romans in this war.
- 4 Define or explain the following: (a) municipium, (b) colony, (c) military road. Show how each aided Rome in gaining control of Italy.
- 5 Connect an important event in Roman history with each of *five* of the following dates (B. C.): 753, 509, 390, 264, 146, 44, 31.
- 6 Mention an important duty of *each* of the following: consul, pretor, censor, tribune, edile.
- 7 Give an account of Carthage, touching on (a) location, (b) origin, (c) subject territory, (d) commerce, (e) government.
- 8 Write on *one* of the following: (a) reasons that led the Gracchi to support the cause of the poor, (b) mistakes of the Gracchi.
- 9 State the circumstances that justified the following saying: "His fine house killed this man, a garden that, a third, his hot baths."—Plutarch, *Life of Sulla*
- 10 Give an account of Julius Caesar's military career previous to his crossing the Rubicon.
- 11 Show by what methods Augustus retained absolute power without serious offense to republican sentiment.
- 12 Give an account of the internal dangers that threatened the Roman Empire from the death of Nero to the accession of Vespasian.
- 13 State with reference to the Empire in the century that intervened between the reigns of Marcus Aurelius and Diocletian (a) *two* external dangers, (b) *three* signs of internal weakness.
- 14 Give an account of the career of Alaric, touching on (a) his first invasion of Italy, (b) his second invasion of Italy, (c) his treatment of Rome, (d) his death and burial.
- 15 Write on *one* of the following topics: (a) leading Latin poets and historians, (b) Roman education under the Republic and under the Empire.

High School Department

176TH EXAMINATION

MEDIEVAL HISTORY

Friday, January 30, 1903—9.15 a. m. to 12.15 p. m., only

Answer eight questions but no more. If more than eight are answered only the first eight answers will be considered. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

1 Show the influence of the fall of the Roman Empire in the west on *two* of the following: (a) the maintenance of learning, (b) the power of the church, (c) the growth of European nations.

2 Give an account of the Hunnish invasion of the 5th century, touching on (a) origin, (b) leader, (c) characteristics of the invaders, (d) effects on Teutonic tribes, (e) battle of Châlons, (f) the Huns in Italy.

3 Mention *three* Teutonic kingdoms founded between 376 and 732 and give the location of each kingdom mentioned. Give an account of *one* of these kingdoms.

4 Write somewhat in detail on *one* of the following: (a) the superiority of Roman law over Teutonic law, (b) the reign of Justinian, (c) the exploits of Heraclius.

5 Mention *three* Romance nations. Explain the origin of Romance nations and Romance languages.

6 Give an account of the attacks of the Mohammedans on eastern Europe (717-718) and on western Europe (711 and 732).

7 State somewhat in detail how the Saxon conquest of Britain affected (a) the native population, (b) the church, (c) the civilization introduced into Britain by the Romans.

8 Give an account of the statesmanship of Charlemagne, touching on (a) the establishment of counties, (b) diet or general assembly, (c) capitularies, (d) *missi dominici* or deputies, (e) provisions for education.

9 Explain the nature of feudalism as regards (a) land tenure, (b) military service. Mention *two* ways in which feudalism assisted European progress.

10 Show how the growth of English parliamentary power was aided by *each* of the following: (a) Stephen Langton, (b) Simon de Montfort, (c) Edward I.

11 Sketch the life of Joan of Arc, touching on (a) the political conditions that roused her patriotism, (b) her belief, (c) her successes, (d) her death, (e) her influence on France.

12 Show the relation of each of *four* of the following to the revival of learning: (a) Moorish universities, (b) capture of Constantinople (1453), (c) Italian cities, (d) Petrarch, (e) invention of printing.

High School Department

178TH EXAMINATION

MEDIEVAL HISTORY

Friday, June 19, 1903—9.15 a. m. to 12.15 p. m., only

Answer eight questions but no more. If more than eight are answered only the first eight answers will be considered. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

1 Write on *two* of the following: (a) conversion of the Goths and their attitude toward the Catholic church, (b) conversion of the Franks and its important results, (c) work of the early Celtic church.

2 Give an account of the Vandals, covering (a) route of their invasion, (b) settlement in Europe, (c) conquest of Africa, (d) invasion of Italy, (e) overthrow of their African kingdom.

3 State the causes that led to the Saxon conquest of Britain, touching on (a) physical and moral condition of the Britons, (b) condition of Britain as compared with the European abodes of the invaders, (c) character of the conquerors.

4 Write on *one* of the following: (a) the rules and labors of the Benedictine monks, (b) *three* medieval methods of settling disputes.

5 Give an account of Mohammedanism, touching on (a) origin, (b) important doctrines, (c) method of propagation, (d) conquests previous to 711.

6 Give an account of the causes (a) that drew the Frankish kingdom under Pepin and the Papacy into alliance, (b) that led to the establishment of the Roman Empire in the west.

7 Write on *two* of the following: (a) Arabian literature and learning, (b) the service of the Eastern Empire to medieval Europe, (c) the Northmen in France and in England.

8 Give an account of *two* great reforms in the church favored by Gregory 7. Mention and describe *two* of the principal means used by the Papacy to compel obedience.

9 Give an account of the first crusade, touching on (a) causes, (b) the Council of Clermont, (c) principal leaders, (d) immediate results.

10 Write on the following: (a) the obligations of a knight, (b) the value of chivalry in a lawless age, (c) the influence of chivalry on literature.

11 Show (a) the causes of the rapid development of cities and towns in the 10th and 11th centuries, (b) the ways in which towns often gained the right to govern themselves, (c) the influence and importance of guilds in medieval town life, (d) the purpose and power of the Hanseatic League.

12 Give an account of the growth of monarchical power in France under (a) Philip Augustus, (b) Philip the Fair.

High School Department

175TH EXAMINATION

ENGLISH HISTORY

Thursday, September 25, 1902 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Draw a map of the British Isles and on it show, with name, the location of (a) Dublin, (b) Edinburgh, (c) Glasgow, (d) Liverpool, (e) Dover.

2 State in regard to Christianity in Britain (a) in what period it was introduced, (b) what treatment it received from the Saxon invaders, (c) what was accomplished by Saint Augustine's mission.

3 Mention and describe *two* reforms introduced by Alfred the Great.

4 Sketch the life of Edward the Confessor, touching on (a) education, (b) accession to the throne, (c) most important achievement, (d) character.

5 State important results of each of *two* of the following: (a) the Crusades, (b) the 100 Years War, (c) the invention of printing.

6 Give an account of the conquest of (a) Wales, (b) Scotland.

7 Write somewhat in detail on *one* of the following: (a) the value of the Great Charter, (b) the Constitutions of Clarendon.

8 Write biographic notes on *five* of the following: Thomas Cromwell, Sir Francis Drake, Lady Jane Grey, Sir Thomas More, Edmund Spenser, Mary Stuart, Perkin Warbeck.

9 Mention *three* important events of Elizabeth's reign and give an account of *one* of them.

10 Define or explain *three* of the following: (a) ship-money, (b) Roundhead, (c) Gunpowder Plot, (d) Bill of Rights, (e) Puritan.

11 State in regard to the War of the Spanish Succession (a) why England became involved, (b) *two* important English victories, (c) *two* important results to England.

12 Mention in order of succession the rulers of England from the time of Queen Anne to the present day. Connect an important event with the reign of George 2.

13 Relate the circumstances that caused the war between England and the United States in 1812.

14 Sketch the life of *one* of the following: Admiral Nelson, John Bright, William E. Gladstone, Cecil Rhodes.

15 Give an account of *two* of the following: (a) the Reform Bill of 1832, (b) the abolition of slavery in British colonies, (c) an important war of Victoria's reign.

High School Department

176TH EXAMINATION

ENGLISH HISTORY

Thursday, January 29, 1903 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Mention and describe *three* physical features that have contributed largely to England's wealth.

2 Write on the following: gains and losses that came to Britain from the Roman Conquest.

3 Give *three* reasons why Alfred is entitled to be called Alfred the Great.

4 Give an account of the Danish Conquest, touching on (a) character of Ethelred the Unready, (b) Danegeld, (c) massacre of St Brice, (d) Sweyn's vengeance.

5 Write on the Norman invasion, covering (a) origin of the Normans, (b) decisive victory, (c) treatment accorded to London.

6 Give an account of the reign of Henry 1, noting *three* important particulars.

7 Write on *one* of the following: (a) the territory ruled by Henry 2, (b) the contest of Henry 2 with the church, (c) the reign of Richard 1.

8 Give a reason for the historic importance of *two* of the following: (a) the coming of the Flemish weavers, (b) the battle of Crecy, (c) the wars of Edward 3.

9 Compare the condition of the nobility at the end of the Wars of the Roses with the condition of the merchants and farmers. Mention the classes of people whose support Henry 7 most sought.

10 Mention in order the Tudor sovereigns and connect an important event with the reign of each.

11 Give an account of the Long Parliament, covering (a) parties composing it, (b) *three* important acts prior to the Civil War, (c) attempted arrest of the five members.

12 Give an account of the struggle between France and England for territory in North America in the reign of George 2. State (a) with what European wars this struggle was connected, (b) what other important contest for territory was made by England at this time.

13 Explain somewhat in detail *two* causes of dissatisfaction in Ireland during Victoria's reign.

14 State an important difference between the government of Canada and the government of India. Give a reason to account for this difference.

15 Give an account of efforts made during the last 50 years to better the condition of the poor in England.

High School Department

177TH EXAMINATION

ENGLISH HISTORY

Thursday, March 26, 1903 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Mention (a) *two* cities or towns in England whose names indicate a Roman origin, (b) the military capital of Britain during the Roman occupation. Show by map or otherwise the location of London and of Liverpool.

2 State in regard to the Saxon invasion of Britain three principal tribes of invaders and mention the locality seized by each tribe. Show the progressive character of the Saxon Conquest.

3 Write on *one* of the following: (a) the reign of Canute, (b) the reign of Edward the Confessor.

4 Show how the Norman Conquest affected England as regards *three* of the following: (a) language, (b) architecture, (c) travel and commerce, (d) foreign attacks.

5 Give a summary of the important events in the reign of Edward 1.

6 Write on *one* of the following: (a) Wyclif and the Lollards, (b) the deposition of Richard 2 and its consequences.

7 Give an account of the reign of Henry 5, touching on (a) accession, (b) war with France, (c) treaty of Troyes.

8 State in regard to the voyages of the Cabots (a) purpose, (b) immediate results, (c) remote results.

9 Write on *two* of the following topics: (a) the Spanish Armada, (b) Henry 8 and the church, (c) literature and education in the Tudor period.

10 Write biographic notes on *five* of the following: Lord Bacon, Richard Cromwell, Sir John Eliot, Guy Fawkes, John Hampden, Henrietta Maria, Sir Walter Raleigh, Prince Rupert.

11 Mention the sudden change of manners that occurred in England on the accession of Charles 2. Give reasons.

12 Mention *three* important colonial possessions of England and show how each was acquired.

13 Give a brief account of *two* of Nelson's victories, showing why each was important to England.

14 Write on *two* of the following topics relating to the history of Ireland: (a) the famine of 1845-46, (b) disestablishment of the Irish church, (c) the Land League.

15 Give *two* reasons why Great Britain today is specially interested in maintaining peace in the civilized world.

Or

Give a summary of the wars of Victoria's reign.

University of the State of New York

High School Department

178TH EXAMINATION

ENGLISH HISTORY

Thursday, June 18, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Draw a map of England and Wales and on it show, with name, the approximate location of (a) Cambridge, (b) London, (c) Oxford, (d) Plymouth, (e) Stratford-on-Avon.

2 Give an account of the first real conquest of Britain by the Romans, touching on (a) date, (b) conflict with the Druids, (c) rule of Agricola.

3 Summarize the conquests of the territory now called England that occurred subsequent to the final withdrawal of the Roman legions. State an important result of each conquest.

4 Write on the following: (a) the labors of St Augustine, (b) the adoption of the Roman Easter.

5 Give an account of the civil war that followed the reign of Henry 1, covering (a) cause, (b) principal results.

6 State a provision of the Magna Charta that is distinctly reaffirmed in the Bill of Rights.

7 Give an account of the labor troubles in the reigns of Edward 3 and Richard 2, touching on (a) scarcity of laborers and its cause, (b) attempts of the government to regulate wages and the results of these attempts, (c) Wat Tyler's rebellion.

8 Mention the kings belonging to (a) the House of Lancaster, (b) the House of York. Explain the real nature of the Wars of the Roses.

9 Sketch the life of Mary Stuart, touching on (a) first marriage, (b) claims to the English throne, (c) imprisonment, (d) death, (e) legacy.

10 Write on the following: (a) signs of national progress in the Tudor period, (b) origin of puritanism.

11 Relate the circumstances subsequent to the battle of Naseby that led to the execution of Charles 1.

12 Write on *one* of the following: (a) the parliamentary union of England and Scotland and its results, (b) the establishment of the Bank of England.

13 State (a) how a prime minister is now chosen, (b) under what circumstances a prime minister must resign.

14 Write on *one* of the following: (a) the effects of the French Revolution (1789) in England, (b) the Holy Alliance.

15 Give an account of the relations of England and the United States during the Civil War (1861-1865).

Or

Write on the following: (a) The Sick Man of the East, (b) The Open Door in China.

High School Department

175TH EXAMINATION

**ELEMENTARY UNITED STATES HISTORY
AND CIVICS**

Wednesday, September 24, 1902—9.15 a.m. to 12.15 p.m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Give an account of a noted exploration of North America made in the service of (a) France, (b) England.

2 Describe the mode of life of the North American Indians, covering (a) habitations, (b) occupations.

3 Give an account of the Massachusetts Bay colony, touching on (a) purpose, (b) principal leaders, (c) principal settlements.

4 Mention *two* important military expeditions of the French and Indian wars and show the purpose of each expedition.

5 Distinguish between charter colony and royal colony. What special advantage was possessed by charter colonies?

6 State in regard to American colonial trade (a) *two* restrictions made by England, (b) an illegal practice that became common in the colonies.

7 Mention as connected with the Revolution *five* important events that occurred in New York state. Give an account of *one* event mentioned.

8 Give an account of the First Continental Congress, showing (a) why it was summoned, (b) where it met, (c) what it did.

9 Show by map or otherwise the location in New York state of (a) *three* places that were invaded in the War of 1812, (b) *two* cities whose growth was largely promoted by the Erie canal.

10 Mention an important event connected with the administration of *each* of the following: (a) Van Buren, (b) Polk, (c) Buchanan. Show the importance of each event mentioned.

11 State *one* important result of *each* of the following: (a) the invention of the cotton-gin, (b) the invention of the reaper, (c) the introduction of railways.

12 Mention and explain *two* important causes of the Civil War.

13 State in regard to the Alabama claims (a) origin, (b) importance, (c) terms of settlement.

14 Why are states forbidden by the Constitution to (a) engage in war, (b) make treaties, (c) coin money?

15 Mention and explain *three* duties of the president of the United States.

High School Department

176TH EXAMINATION

ELEMENTARY UNITED STATES HISTORY
AND CIVICS

Wednesday, January 28, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Give *two* reasons why Columbus wished to find a new route to India. Show why the discoveries of Columbus at first disappointed the Spaniards.

2 Describe the character of the North American Indian as it appeared in (a) peace, (b) war.

3 Write biographic notes on *five* of the following: Cecil Calvert, Massasoit, Peter Minuit, William Penn, Pocahontas, Governor Winthrop, Roger Williams.

4 Describe the settlement of New Netherlands, touching on (a) previous explorations, (b) purpose of the early settlers, (c) kind of government established.

5 Mention a colony that before the Revolution engaged largely in (a) fishing, (b) fur trading, (c) commerce, (d) tobacco raising, (e) rice growing.

6 Write on *two* of the following relating to the colonial history of New York: (a) the First General Assembly, (b) the burning of Schenectady, (c) Jacob Leisler's rebellion.

7 Give an account of the public services of George Washington prior to the Revolution.

8 Distinguish between the Articles of Confederation and the Constitution. When was the Constitution adopted?

9 Mention as connected with the War of 1812 (a) *three* important American victories, (b) *two* serious American disasters. Give an account of *one* event mentioned.

10 Arrange the following in chronologic order with reference to their administrations: Lincoln, Grant, John Quincy Adams, Andrew Jackson, John Adams. Connect *one* important event with each administration.

11 Show the importance of *two* of the following in the Civil War: (a) the first battle of Bull Run, (b) the capture of New Orleans, (c) the capture of Atlanta.

12 Show how *each* of the following was acquired: (a) Oregon, (b) Alaska, (c) Porto Rico.

13 Give an account of the destruction of Cervera's fleet.

14 Define or explain *five* of the following: Congress, electoral college, Emancipation Proclamation, impeachment, legislation, suffrage, treaty.

15 What important duty is performed by the vice-president? Mention *three* vice-presidents who have succeeded to the presidency through the death of the president.

High School Department

177TH EXAMINATION

ELEMENTARY UNITED STATES HISTORY
AND CIVICS

Wednesday, March 25, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Give an account of an important exploration of each of two of the following: Magellan, Henry Hudson, Adrian Block.

2 Mention the first permanent settlement made within the present boundaries of the United States by (a) Spain, (b) England. Give the location and the approximate date of each.

3 Give two reasons why early European settlements in North America were generally made on or near the coast.

4 Write on one of the following: (a) customs and mode of life of the Dutch settlers in New Amsterdam, (b) Champlain's attack on the Iroquois and its results.

5 Mention two American colonies that had the right to elect their own governors. What important colony was deprived of this right in the reign of Charles 2? Give reasons.

6 Explain the circumstances under which two of the following were uttered: (a) "Caesar had his Brutus, Charles 1 his Cromwell, and George 3 may profit by their example," (b) "This meeting can do nothing more to save the country," (c) "I regret only that I have but one life to give to my country."

7 Mention three battles of the Revolution that were commanded by Washington. Give an account of one battle mentioned.

8 Mention five states that have been formed from the Louisiana purchase. Why did the possession of New Orleans become important to the United States?

9 What section of the United States was much opposed to the War of 1812? Give reasons.

10 State the provisions of the Missouri Compromise in regard to slavery.

11 Define or explain two of the following: (a) fugitive slave law, (b) Dred Scott Decision, (c) underground railroad.

12 Give an account of one of the following: (a) draft riot in New York city, (b) Lincoln's *Gettysburg Address*, (c) the capture of Richmond.

13 Sketch the life of one of the following: Philip Schuyler, William H. Seward, Peter Cooper.

14 State with reference to the governor of New York state (a) mode of election, (b) term of office, (c) three duties.

15 Mention and explain three rights secured to every law-abiding citizen by the Constitution of the United States.

**ELEMENTARY UNITED STATES HISTORY
AND CIVICS**

Wednesday, June 17, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Show why exploration in the 15th century was extended by the use of the mariner's compass.

2 Give an account of *two* of the following: (a) the discovery of the Pacific ocean, (b) the voyage of Magellan, (c) the discovery of the continent of North America.

3 Write on *one* of the following: (a) Indian attacks on the Dutch settlers in the time of Governor Kieft, (b) dispute between the Dutch and the English in regard to the boundary of New Netherlands.

4 Mention *two* New England colonies that were first settled by people from Massachusetts. Give an account of the settlement of *one* of these colonies.

5 Define or explain *five* of the following: (a) charter, (b) royal governor, (c) proprietary colony, (d) regicides, (e) New England Confederacy, (f) witchcraft, (g) Puritan, (h) Pilgrim.

6 Mention *three* important English victories in the last intercolonial war and show why each was important.

7 Write on *one* of the following relating to the Revolution: (a) Washington's retreat through New Jersey, (b) Benefits of the French alliance, (c) Indian and Tory warfare in New York state.

8 Mention the presidents of the United States from 1789 to 1812. Connect an important event with the administration of each.

9 Give an account of the Mexican War, touching on (a) remote cause, (b) immediate cause, (c) resulting territorial gains.

10 State an important service rendered by each of *three* of the following: Andrew Jackson, Henry Clay, Daniel Webster, DeWitt Clinton, Samuel F. B. Morse.

11 Give an account of the dispute that arose over the admission of California as a state.

12 Mention and describe *two* important events by which the Union forces gained control of the Mississippi in the Civil War.

13 Mention as results of the War with Spain (a) the possessions lost by Spain, (b) the territorial gains of the United States.

14 Show how those held in slavery before the Civil War (a) became citizens of the United States, (b) obtained the right to vote.

15 Distinguish between a legislative bill and a law. How does a bill become a law in New York state?

High School Department

175TH EXAMINATION

ADVANCED UNITED STATES HISTORY

Thursday, September 25, 1902—9.15 a. m. to 12.15 p. m., only

Answer eight questions but no more. If more than eight are answered only the first eight answers will be considered. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

1 Show how diversity of soil and climate in the United States (a) affected colonial development, (b) is a present source of national strength.

2 State *three* particulars in which the Iroquois surpassed other Indians of central North America.

3 State the attitude of Virginia toward the Civil War in England (1642-49). Describe the treatment accorded to Virginia by the Commonwealth under the Puritans.

4 Show by map or otherwise the territory in North America claimed by France in 1754. State in detail the basis of French claims.

5 Show how the charter grants to the London Company and to the Massachusetts Bay Company conflicted. What difficulty arose after the Revolution from these conflicting grants?

6 Show why in the Revolution hostilities (a) began in New England, (b) were transferred to New York, (c) were transferred to Georgia and South Carolina.

7 Give an account of the bargain by which the capital of the United States was located on the Potomac.

8 Give an account, covering causes and results, of *two* of the following: (a) Kentucky Resolutions, (b) Whisky Insurrection, (c) Hartford Convention.

9 Relate the circumstances that led to the war with Mexico. Show by map or otherwise the accession of territory that resulted from the Mexican War.

10 Show the effect of the Kansas-Nebraska Bill on the origin or fortunes of *three* political parties.

11 Give an account of the disagreement between Andrew Johnson and Congress, covering important views of each in regard to (a) the reconstruction of seceded states, (b) the presidential power of removal.

12 State important national benefits derived from world's fairs or industrial exhibitions. Why should such enterprises receive government aid?

High School Department

176TH EXAMINATION

ADVANCED UNITED STATES HISTORY

Thursday, January 29, 1903—9.15 a. m. to 12.15 p. m., only

Answer eight questions but no more. If more than eight are answered only the first eight answers will be considered. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

1 Show why the Norse explorations of North America were of small historic importance. Mention (a) *two* European cities largely interested in oriental commerce in the 15th century, (b) *two* European sovereigns of the 15th century who encouraged maritime exploration.

2 Show by map or otherwise the approximate location of each of the Iroquois tribes of New York. Describe the Iroquois form of government.

3 Describe by map or otherwise the *three* principal mountain systems of the United States. Show the effect of each system on the settlement of the country.

4 State facts to show the truth of the following statement of Governor Winthrop: "The disorders of the mother country were the safeguard of the infant liberties of New England."

5 Show how the intercolonial wars (a) created a desire for colonial union, (b) increased the military strength of the colonies.

6 Explain advantages to the colonists in the Revolution, arising from (a) the geographic features of the country, (b) the blunders of English commanders.

7 State differences of opinion in the Federal Convention (1787) in regard to (a) representation of the states in Congress, (b) the apportionment of representatives, (c) the regulation of the slave trade. Show how each difference was adjusted in the Constitution.

8 State the conditions that rendered slave labor more profitable in the southern than in the northern states. Give reasons why southern politicians wished to extend the area of slavery.

9 Relate the circumstances that led to the panic of (a) 1837, (b) 1873. Note any similarity in the financial or industrial conditions that preceded each panic.

10 Give an account of the present Republican party, covering (a) circumstances that led to its formation, (b) date of its first national triumph, (c) issues on which it suffered national reverses in 1884 and 1892.

11 Write on *one* of the following: (a) the formation of Greater New York, (b) the present condition and needs of the Erie canal, (c) educational opportunities in New York state.

12 Mention in order the accessions to United States territory since 1860. State specifically how each accession was obtained.

High School Department

178TH EXAMINATION

ADVANCED UNITED STATES HISTORY

Thursday, June 18, 1903—9.15 a. m. to 12.15 p. m., only

Answer eight questions but no more. If more than eight are answered only the first eight answers will be considered. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

1 Give *two* reasons why the Atlantic coast was specially favorable to settlement and colonial development.

2 Give an account of *two* conditions, religious, political or social, that led Europeans to settle in North America in the 17th and 18th centuries.

3 Compare the kind of government as generally established in the English colonies of North America with that established by (a) the French in New France, (b) the Dutch in New Netherlands.

4 Mention *three* important events connected with the colonial history of New York. Give an account of *one* event mentioned and show reason for its importance.

5 State *four* particular charges made against George 3 in the Declaration of Independence.

6 Show how Federalists and Republicans in Washington's administration generally differed in regard to (a) assumption of state debts by the general government, (b) payment of debts incurred by the Second Continental Congress in carrying on the Revolution, (c) establishment of a national bank, (d) use of forms and ceremonies by public officials.

7 State in regard to the Embargo of 1807 (a) cause, (b) purpose, (c) results.

8 Give the substance of the Dred Scott decision in relation to (a) negro citizenship, (b) the Missouri Compromise, (c) the power of Congress over slavery in the territories. Show the effect of this decision on the fortunes of (a) the Democratic party, (b) the Republican party.

9 Give a summary of at least *five* successive steps (movements or campaigns) by which rebellion in the southern states (1861-1865) was crushed.

10 Write on *two* of the following: (a) carpet-bag government, (b) industrial changes in the south since 1865, (c) disfranchisement of the southern negro.

11 Mention and explain *three* important results that have followed the introduction of labor-saving machinery in the United States.

12 Give an account of the educational system of the State of New York, touching on (a) the first college, (b) origin and purpose of the Board of Regents, (c) establishment of the Department of Public Instruction, (d) origin and growth of free public schools.

Note to the student.

Kindly answer the following for the benefit of the examiner:

a Have you studied *intensively* the history of New York state or any given period of United States history?

b Have you kept a notebook?

c What books have you read in connection with your study of advanced United States history?

High School Department

175TH EXAMINATION

CIVICS

Thursday, September 25, 1902 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define *five* of the following: treason, alien, political right, government, writ of habeas corpus, copyright, deed.

2 Distinguish between a constitutional monarchy and a republic. State a leading advantage and defect of each.

3 Trace the development of the town from its origin to its transference to America.

4 Distinguish between a civil case and a criminal case.

The following five questions refer to New York state:

5 State the length of term, the manner of compensation and the chief duty of *each* of the following: justice of the peace, county clerk, supervisor, town constable.

6 Write on *one* of the following: state quarantine commissioners, state tax commissioners.

7 State the manner of obtaining office, the length of term and *two* duties of each of *two* of the following: commissioner of agriculture, governor, superintendent of public instruction.

8 Give in substance the provision of the Constitution in reference to *one* of the following: qualifications of voters, residence for purposes of voting.

9 Distinguish between the duties of a grand jury and those of a trial jury. Mention *two* classes exempt from jury duty.

The following questions refer to the United States:

10 Give the name of the executive department that has charge of matters relating to (a) pensions, (b) lighthouse service, (c) rural free delivery of mails, (d) collection of duties, (e) construction of United States government docks.

11 State how *each* of the following is chosen and mention *one* duty of each: ambassador to England, speaker of the House of Representatives, United States senator, collector of the port of New York, vice-president.

12 State what person or body is authorized by the Constitution to (a) choose the president in case the Electoral College fails to elect, (b) receive ambassadors, (c) declare war, (d) make treaties, (e) try impeachments.

13 Give in substance the provision of the Constitution in reference to *one* of the following: supremacy of national law, search warrants.

14 Describe *one* of the following, touching on (a) organization, (b) principal function: the United States Supreme Court, the Interstate Commerce Commission.

15 Outline the steps by which a bill becomes a law.

University of the State of New York

High School Department

176TH EXAMINATION

CIVICS

Thursday, January 29, 1903 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define *five* of the following: democracy, constitution, naturalization, arbitration, slander, pardon, arson.

2 State what is meant by right of eminent domain and mention circumstances that justify a government in exercising this right.

3 Explain the importance of the town as (a) a unit of government, (b) an aid to the maintenance of popular government.

The following six questions refer to New York state:

4 Give with reference to *each* of the following (a) length of term, (b) *two* duties: trustee of common school-district, town clerk, sheriff.

5 State the manner of obtaining office, the length of term and *one* duty of *each* of the following: speaker of the Assembly, superintendent of public instruction, state engineer and surveyor.

6 Give in substance the provision of the Constitution in reference to *one* of the following: classification of cities, rights of persons accused of capital crime.

7 Describe the manner of voting by use of the blanket (Australian) ballot.

8 Write on *one* of the following: commissioners of the land office, state tax commissioners.

9 Describe the legislative body of a city. Mention *two* matters on which a city council may pass ordinances.

The following questions refer to the United States:

10 State what person or body is authorized by the Constitution to (a) coin money, (b) choose consuls, (c) try cases affecting ambassadors, (d) convene Congress on extraordinary occasions.

11 State how *each* of the following is chosen and mention the chief duty of each: United States commissioner of labor, member of electoral college, attorney-general.

12 Show the importance of the power of the Senate to ratify or reject treaties made by the president.

13 Mention the successive steps in the process of nominating and electing a member of the House of Representatives.

14 Show the necessity of the power possessed by Congress to regulate interstate commerce.

15 Give in substance the provision of the Constitution in reference to (a) compensation of the president, (b) powers reserved to states.

High School Department

177TH EXAMINATION

CIVICS

Thursday, March 26, 1903 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define *five* of the following: caucus, political right, alien, citizen, libel, deed, reciprocity.

2 Show that in a democratic form of government the right to vote implies the duty to vote.

3 Explain the advantages to the people of a written constitution over an unwritten constitution.

4 Define international law. Mention *two* defects in the system of international law in vogue at the present time.

The following five questions refer to New York state:

5 Mention the officers composing the town board and state the principal duty of this board.

6 State the manner of compensation and *two* duties of (a) inspector of election, (b) county treasurer, (c) surrogate.

7 Compare the office of president of the Senate with that of speaker of the Assembly, touching on (a) mode of election, (b) privilege of voting, (c) power with reference to the appointment of standing committees.

8 State the manner of obtaining office, the length of term and the chief duty of *each* of the following: governor, state senator, attorney-general.

9 Give in substance the provision of the Constitution in reference to *one* of the following: disfranchisement of citizens, succession to the governorship.

The following questions refer to the United States:

10 State how *each* of the following officers is chosen and mention *one* duty of each: president, secretary of agriculture, president pro tem. of the Senate.

11 Distinguish between *ad valorem* and specific duties. Describe the manner of collecting duties practised by the United States government.

12 Give in substance the provision of the Constitution regarding *one* of the following: power of the president to convene and to adjourn Congress, protection to states by the nation.

13 Explain why judges enjoy longer terms of office under the Constitution than officers in the executive and legislative departments of government.

14 Compare the members of the United States Senate with those of the House of Representatives as to (a) number, (b) term of office, (c) qualifications.

15 Mention *two* points of difference between the rights enjoyed by a state and the rights enjoyed by a territory.

University of the State of New York

High School Department

178TH EXAMINATION

CIVICS

Thursday, June 18, 1903 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define *five* of the following: consul, ambassador, civil right, ex post facto law, perjury, quorum, mortgage.

2 Mention *two* benefits and *two* evils due to the prominence of political parties in our system of government.

3 State *one* point of resemblance and *one* point of difference between a republic and a pure democracy. Which of these forms of government is the older? Explain.

4 Explain the terms rotation in office and tenure of office as applied to government service.

The following five questions refer to New York state:

5 Give with reference to each of *two* of the following (a) manner of compensation, (b) *two* duties: supervisor, school commissioner, town assessor.

6 Give reasons for or against electing town officers at the time of the general (November) election.

7 Give in substance the provision of the Constitution in reference to each of *two* of the following: opening private roads, trial of impeachment, power of the state to contract debts.

8 State the length of-term, the manner of obtaining office and *one* duty of *each* of the following: secretary of state, judge of the Court of Appeals, superintendent of public works.

9 Write on *one* of the following: Court of Claims, Board of Railroad Commissioners.

The following questions refer to the United States:

10 State *four* objects of the Constitution as set forth in the preamble.

11 Give arguments for or against choosing the president by direct popular vote.

12 Show the importance of the power possessed by Congress to (a) borrow money on the credit of the United States, (b) define and punish felonies committed on the high seas.

13 Give in substance the provision of the Constitution in reference to *one* of the following: privileges of senators and representatives, fugitive criminals.

14 Give the titles of the officers composing the president's cabinet.

15 What is meant by committee of the whole? State an advantage of considering a bill in this committee.

High School Department

175TH EXAMINATION

ECONOMICS

Wednesday, September 24, 1902 — 1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define *five* of the following: demand, credit, finished product, utility, price, bimetallism, value, commodity.

2 Distinguish between the term economic rent and the term rent as commonly used.

3 Show that industrial unrest among workmen is an evidence of social progress.

4 Explain the following quotation: "The more a nation saves, the more it can produce."

5 Account for the fact that capital invested in industry has shown a tendency in recent years to yield decreasing profits. What modern method of industrial organization is intended to counteract this tendency?

6 Mention with reference to division of labor (a) *three* restrictions in its application, (b) *one* advantage to workmen, (c) *one* possible disadvantage to workmen.

7 Mention *two* forms of capital and show in reference to *one* of these forms the transformations that it constantly undergoes.

8 State the substance of *each* of the following: Gresham's law, the laissez-faire doctrine.

9 Show that the use of money as a medium of exchange obscures the nature of the process of exchange.

10 Give economic reasons for the recent upward tendency in the value of farm lands.

11 Discuss strikes in their relation to (a) striking workmen, (b) the public.

12 State *three* causes that affect the amount of wealth produced in a country.

13 Give arguments for or against the control of coal mines by the national government.

14 Show that an inflated currency is injurious to industry.

15 Give arguments to establish or to controvert the statement that there is need of radical tariff revision in the United States.

High School Department

176TH EXAMINATION

ECONOMICS

Wednesday, January 28, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define *five* of the following: economics, value, rent, monopoly, working capital, dividend, trust.

2 State *two* conditions on which the economic progress of a country depends. Explain.

3 Show that buying and selling do not create wealth. Mention *one* useful function of traffic.

4 Account for the fact that rates of interest in general show a downward tendency from year to year.

5 Show that a workman's real wages may fluctuate greatly while his nominal wages remain fixed.

6 Account for the fact that comparatively few men own capital in appreciable amounts.

7 Explain the following quotation: "The value of the laborer's services to the employer is the net result of two elements, one positive, one negative, namely, work and waste."

8 Explain and illustrate with reference to the use of capital the relation of consumption to production.

9 Distinguish between direct taxation and indirect taxation. Mention *three* proper objects of government expenditure.

10 Discuss compulsory arbitration as a means of adjusting differences between capital and labor.

11 Explain what is meant by "stringency in the money-market," and suggest a remedy for this evil.

12 Show the effect of expanding credits on the prices of commodities.

13 Explain why marked industrial activity in a country creates a demand for foreign markets.

14 Discuss the protective tariff of the United States in its relation to the total permanent industry of the country.

15 Write on *one* of the following: the single tax theory, the Malthusian theory.

High School Department

177TH EXAMINATION

ECONOMICS

Friday, March 27, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define *five* of the following: exchange, wealth, fixed capital, interest, utility, cost, distribution.

2 Show that industrial combinations are the natural outcome of competitive trade.

3 Distinguish between productive consumption and unproductive consumption. Illustrate.

4 Mention *two* dangers incident to the rapid expansion of credit in a country. Explain.

5 Show by illustration or otherwise the effect of the introduction of special machinery on (a) the volume of production, (b) the cost of production.

6 Show the effect of the ownership of land on the thrift of the owner.

7 Explain why the coal mining and the coal carrying industries should be in the hands of distinct corporations.

8 Explain the relation of protective duties to *two* of the following: the industrial prosperity of the country, the wages of workmen, the cost of protected commodities to the consumer.

9 Show that the efficiency of workmen is promoted by (a) division of labor, (b) wholesome social surroundings.

10 Show that the rent values of real estate are in general an index of local business conditions.

11 Discuss the "boycott" as a means of promoting the interests of organized labor.

12 Show that improved methods in agriculture tend to counteract the law of diminishing returns from land.

13 Explain the tendency in a series of years of the values of the exports of a country to balance the values of its imports.

14 Discuss the relative merits of gold and silver as a standard of value for deferred payments.

15 Explain the following: "It is essential to the modern man of business that he adapt himself to every economic change."

Wednesday, June 17, 1903—1.15 to 4 15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Define *five* of the following: money, arbitration, commodity, exchange, cooperation, boycott, raw material.

2 Mention conditions under which the price of a commodity may be (a) less than its real value, (b) greater than its real value.

3 Explain the following: "Made to measure success or to furnish the basis of social precedence, wealth may vitiate all social progress."

4 Mention *two* essential characteristics of material wealth. Show that the production of wealth in industry depends largely on skill in management.

5 Discuss, from the employer's point of view, the propriety of an eight-hour law in its relation to productive industry.

6 Show that rates of interest depend on (a) the supply of loanable money, (b) business conditions.

7 Mention *two* advantages and *two* disadvantages of a large manufacturing establishment in comparison with a small one.

8 Explain why the wages of women in a given occupation are in general less than the wages of men.

9 State *two* purposes for which industrial trusts are organized. Are trusts as a rule harmful or beneficial to the people? Explain.

10 State difficulties in the way of establishing international bimetallism.

11 Explain the relation of protective duties to (a) domestic consumption, (b) trade with foreign countries.

12 Mention *two* circumstances affecting the rate of increase of the capital of a country.

13 Show that strikes, though involving large bodies of workmen, can not raise the general level of wages.

14 Explain why the prices of manufactured commodities are subject to less fluctuation from year to year than the prices of natural commodities.

15 Give *one* argument for and *one* argument against the single tax theory.

High School Department

176TH EXAMINATION

PSYCHOLOGY

Friday, January 30, 1903—9.15 a. m. to 12.15 p. m., only

Answer eight questions but no more. If more than eight are answered only the first eight answers will be considered. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

1 Define *five* of the following: introspection, recollection, attention, inhibition, illusion, reaction time, judgment.

2 Show how knowledge, feeling and will are involved in *each* of the following, stating which of these elements predominates: (a) writing a letter, (b) understanding a statement.

3 Explain, with illustrations, the meaning of the following: "The most essential peculiarity of consciousness is its unity and continuity."

4 Hearing a rumbling noise you decide that it comes from a wagon passing in the street; give (a) a physiologic explanation of the production of the sensation, (b) a psychologic explanation of the formation of the perception.

5 Outline a train of associated ideas suggested to you by the word office, and explain the order of these ideas by references to the laws of association. State why this particular train of ideas is suggested rather than any other.

6 Give a psychologic explanation of a well-balanced character.

7 Define imagination. Show how conception, attention and judgment are involved in the imagination.

8 Your nephew has recently been bitten by a snake. Going into the garden one day at dusk, you see a long, dark, crooked twig in the path; you jump back. Trace the psychologic processes resulting in this act.

9 Show in detail how a conception differs from a perception. Discuss the value of language as an aid to conception.

10 Give a psychologic analysis of the process of thinking. Illustrate.

11 Show, with illustrations, the truth of the following statement: "Induction is the mode by which all the materials of knowledge are brought to the mind. Deduction is the process by which the knowledge thus acquired is utilized."

12 Explain psychologically (a) why two persons walking through a forest together would not see the same things, (b) why an occupation is easier for a man who has worked at it for a year than for a man who has worked at it for a week.

High School Department

178TH EXAMINATION

PSYCHOLOGY

Friday, June 19, 1903—9.15 a. m. to 12.15 p. m., only

Answer eight questions but no more. If more than eight are answered only the first eight answers will be considered. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

1 State what is meant by (a) subjective observation, (b) objective observation, (c) experiment. Mention *two* reasons why observation of mental facts is difficult.

2 Define and illustrate reaction-time. Discuss the effect of attention on reaction-time.

3 Explain in full what is meant by the idea of self.

4 Explain and illustrate the difference between a correct perception and an illusion. Show that the mental process is the same in each case.

5 Give an illustration of an act of voluntary attention and show the physiologic and the psychologic process involved in this act.

6 On passing a store you see the name George Grant; you think of the assassination of McKinley. Outline the train of associated ideas, giving at least *four* steps, by which you arrive at this thought, and explain the order of these ideas by references to the laws of association.

7 Give, with explanation, *three* illustrations to show the practical use of the imagination. Show how the imagination is dependent on experience and how it is influenced by voluntary attention.

8 Give a psychologic explanation of (a) mind wandering, (b) tact, (c) the miser's love of money.

9 Explain and illustrate the difference between a concept and a judgment. Show the function of each in the process of reasoning.

10 Trace the psychologic processes involved in buying a book.

11 Define induction. Show, with illustrations, how the belief in popular superstitions is the result of imperfect induction.

12 Explain psychologically (a) why it is difficult to give an accurate account of our personal experiences, (b) why we can not judge justly of the actions of another.

High School Department

178TH EXAMINATION

ETHICS

Tuesday, June 16, 1903—9.15 a. m. to 12.15 p. m., only

Answer eight questions but no more. If more than eight are answered only the first eight answers will be considered. As this is an examination in ethics all questions must be answered from an ethic standpoint. Each complete answer will receive 12½ credits. Papers entitled to 75 or more credits will be accepted.

1 Distinguish, with illustrations, between *each* of the following: (a) moral and non-moral, (b) action and conduct, (c) motive and intention.

2 State what is meant by moral obligation and discuss its origin from two different standpoints.

3 Give, with explanation, *three* reasons why men differ in their opinion as to what is right and what is wrong.

4 Write explanatory notes on *each* of the following and show its value in the formation of character: constancy, cheerfulness, self-control, benevolence.

5 Give an ethic analysis of remorse. Show the function of remorse and explain why the hardened criminal does not feel remorse.

6 Mention the specific duties toward God, man and self that are violated by lying.

7 Discuss justice, showing some of the difficulties involved in its realization. Give your conception of a perfectly just man.

8 Show the truth or falsity of the following statement, giving arguments and illustrations: "All merit ceases the moment we perform an act for the sake of its consequences."

9 Give the ethic value of the observance of (a) Sunday, (b) Thanksgiving, (c) Christmas.

10 Show, with illustration, the error of carrying to an extreme *each* of the following: unselfishness, courage, persistence.

11 Mention *three* reasons why education is a duty. Does education increase happiness? Explain.

12 Distinguish, with illustrations, between right conduct and conduct that merely conforms to the ethic standard of the community. To what extent should we conform to public opinion?

University of the State of New York

High School Department

175TH EXAMINATION

STENOGRAPHY

Thursday, September 25, 1902—9.15 a. m. to 12.15 p. m., only

NOTE—Candidates may take one or both of these tests. The time for dictation and for transcription is indicated in each case. The shorthand notes and the transcript are to be collected by the examiner at the close of the period assigned for each transcript. Candidates are to specify the system followed in taking down the notes. Credits depend on the accuracy of the notes and of the transcription.

FIRST TEST

Papers entitled to 75% will be accepted. 500 words to be dictated in 10 minutes and to be transcribed in 75 minutes.

MINUTES

Syracuse N. Y. June 23, 1902

Henry G. Clements
New York

Dear sir: We have shipped you today by the N. Y. C. & ½ H. R. R. * 725 barrels domestic fine salt, to be sold on commission and have drawn on you to the amount of \$525, * according to agreement. Inclosed find duplicate freight receipt.

Yours truly
Horne & Layman

Oswego N. Y. July 30, 1902

½ Frank L. Rossman *
Cleveland O.

My dear Frank: George and I have been planning to 2 take a trip through the lakes this fall. * Remembering your fondness for travel, I thought you might wish to be one of the party.

½ We expect to be gone about three weeks, * stopping a few days in the principal cities and taking various side trips as we feel inclined. I inclose some pamphlets describing points of interest * and showing the estimated 3 expense of the trip. Trusting that you can arrange your ½ business so as to be able to accompany us, I am *

Most cordially yours
Jack

Chicago Ill. Aug. 22, 1902

Smith, Warren & Co.

Buffalo N. Y.

4 Dear sirs: We have on hand * a large stock of no. 2 yellow
corn which we are desirous of closing out, to make room
½ for a supply of wheat now on order. * We therefore make
you a sacrifice offer of 67 cents a bushel, f. o. b. afloat, on
5 an order for at least 8000 bushels, * for immediate delivery.
If you are in a position to accept this offer, kindly let us
know immediately.

Yours very truly

½

Holmes & Ketchum *

Nothing just like the coronation of an English king is
seen in any other country. When the sovereigns of Spain
6 and of Holland were enthroned, * they simply swore to
support the constitution. There was no coronation in the
proper sense. . . To understand the significance of the differ-
½ ent parts of the ceremony, * one has to be familiar with
the history of the world for 3000 years. The anointing is
7 a Hebrew rite; the crowning by a priest * is a survival
from the days when every one believed that allegiance was
½ due first to the church and then to the king. * Along
with the religious ceremonial there runs a political cere-
monial, spanning the centuries from feudalism to constitu-
tional government.

8 Much of the ceremony long since ceased * to have any
actual significance, but it has been preserved for its sym-
bolism, just as the monarchy itself has been maintained
½ for its symbolic value. * It has been said that the days of
romance have passed, but modern Englishmen are re-
9 turning with enthusiasm to the romantic period * of their
history, and are reviving its pageants and its formulas with
a show of solemn earnestness. Although the king retains
½ some remnants of power, * the coronation may be described
loosely as a ceremony of symbolism in recognition of a
symbol, as Edward is the state personified—the image of
10 national sovereignty. *

SECOND TEST

Papers entitled to 75% will be accepted. Candidates for state business credentials must obtain at least 90%. 500 words to be dictated in 5 minutes and to be transcribed in 75 minutes.

The patrons of our national and state banks today are of quite a different class from those of 20 years ago. Formerly these banks were used almost exclusively by capitalists, corporations, and active or retired business men; but today $\frac{1}{2}$ a large proportion of the customers of these institutions * is made up from the middle class; that is, from men in moderate circumstances, men on salaries, and women with incomes, who find it more convenient to pay their bills by check than to carry money about with them. Formerly
 1 the policy of the banks was to have a few large accounts, * but now their policy is to have a large number of small accounts. By paying interest on daily balances and by various other accommodations the banks offer inducements that attract a large number of such depositors.

Among the vast number of people who go in and out of $\frac{1}{2}$ our banks day after day, * how many ever stop to consider the inside workings of these indispensable institutions? Most people are more or less familiar with the making of deposits and watch the teller with interest as he counts the cash and passes his eyes over the checks, to see if they
 2 are properly indorsed. * But what do they know of the work required of the bank force after the closing hour?

Dignity and quiet reign. The atmosphere is charged with seriousness. Every man is intent on his own duties. One sees on every hand great piles of checks, but compara-
 $\frac{1}{2}$ tively little actual money * on the counters and desks. This is not strange for in point of fact at least 90 per cent of a day's business is done with checks, bank drafts and other negotiable paper.

One clerk is sorting checks,—arranging them in several
 3 piles, one of Boston checks, * one of New York checks, one of Chicago checks. These piles are large compared with those for smaller and more distant cities.

When these are all grouped they are listed on remittance sheets, the checks properly indorsed, charged to the bank's correspondents in the cities named, and then inclosed and
 $\frac{1}{2}$ addressed * to some large bank in each of those cities. Copies of such remittances are of course retained by the bank.

During the day the checks drawn on the bank are passed to the bookkeeper, who charges them to the customers' accounts, so that at the closing hour all such checks *
4 have been entered against customers' accounts in the balance book and the bookkeeper's work now begins in earnest. He must extend his balances showing balance to the credit of each depositor, the grand total of which must agree with a "deposit account" in the general ledger.

½ All checks for the day * must be canceled and filed away. All cash on hand must be counted, wrapped and labeled, and all the books written up and balanced for the day. When all this is done a full balance is taken showing the
5 complete assets and liabilities of the bank to date. *

University of the State of New York

High School Department

176TH EXAMINATION

STENOGRAPHY

Thursday, January 29, 1903—9.15 a. m. to 12.15 p. m., only

NOTE—Candidates may take one or both of these tests. The time for dictation and for transcription is indicated in each case. The shorthand notes and the transcript are to be collected by the examiner at the close of the period assigned for each transcript. Candidates are to specify the system followed in taking down the notes. Credits depend on the accuracy of the notes and of the transcription.

FIRST TEST

Papers entitled to 75% will be accepted. 500 words to be dictated in 10 minutes and to be transcribed in 75 minutes.

MINUTES

Philadelphia Pa. Jan. 8, 1903

John J. Wilbur
Cleveland O.

Dear sir: This letter will introduce to you Mr Henry
½ Judson, * who visits you in the interest of our firm. We
trust he will meet with the same kindness and courtesy
1 which were always accorded to our former salesmen. *

Yours truly
Simpson & Co.

Portland Me. Oct. 16, 1902

Walker & Billings
Boston Mass.

½ Gentlemen: Invoice of goods shipped by you Oct. 11 *
reached us today. We find everything satisfactory except
two chests of tea, which seem to be badly mildewed. We
2 are willing to keep the tea * at half price, if that will be
satisfactory to you, or we will return it at your expense.
½ Kindly let us know * how you wish to adjust the matter
and we will remit at once.

Very truly yours
White & Graham

3
Morgan, Brown & Co.
Utica N. Y.

Herkimer N. Y. Sep. 17, 1902 *

Dear sirs: In answer to your advertisement in this
½ morning's paper, I would respectfully make application *
for the position of cashier and bookkeeper.

As proof of my ability to fill such a position I can say
4 that after graduating from the commercial course * of a
registered high school, I took a two year university course
in the science of accounts. For the past three years I have
½ been assistant bookkeeper * for the Randolph Publishing
Co. Boston.

I refer you to E. A. Randolph of the above company and
5 to Prof. Charles Clark * of Houston University, New York,
for any further information.

Trusting that my statements and references will prove
satisfactory, I am

Respectfully yours

½

Frank L. Johnson *

The statement is frequently heard that opportunities for
young men to enter on remunerative business or profes-
6 sional careers are much fewer than they were * half a
century ago . . . The real truth is that a properly equipped
young man has today a better chance to secure an inde-
½ pendent and lucrative position * than at any other time in
our history.

There is an old saying that "there is always room at the
7 top," but it is often alleged * that there are so many fitted
for the top that the chance to reach it is greatly lessened . . .
½ On the other hand, the top has been enlarged. * In fact,
every calling in life now has its top, and the great demand
8 is for men competent to fill these high places. * The de-
mand far exceeds the supply.

The top places are growing more and more numerous
through the constant increase in distinct employments.—
½ employments unknown * a few years ago. They have
come into existence through the expansion of industry,
the application of machinery, and the use of steam and
9 electricity. *

The great point is that the boys and young men must
equip themselves thoroughly and then their services will
½ be in demand . . . It is equipment and skill, * allied to
talent, which are making possible for the young men of the
present day the independent opportunities never known to
10 them before. *

SECOND TEST

Papers entitled to 75% will be accepted. Candidates for state business credentials must obtain at least 90%. 500 words to be dictated in 5 minutes and to be transcribed in 75 minutes.

The anthracite coal mines have three distinct classes of labor,—miners, laborers, and men working on engines and pumps and as mine bosses. The last class is employed through the year, as pumps must be kept going whether mining is in progress or not. The laborers load what the ½ miners have detached. * The miner employs these laborers and gets about two thirds of the proceeds of the joint labor. The contract miner's object is to detach in the shortest time each day the largest amount of coal. Nothing helps him 1 but an advance in the rate paid for mining a ton of coal. * The laborer, whose ultimate aim is to become a miner, must work a 10 hour day—the miner sees to that. Pay and hours mean less to the laborer than promotion, and a larger share in the joint wage of himself and the miner. ½ Lastly, * the men employed on pumps and engines care nothing for tonnage. They are free from the irregular days of anthracite miners, and are interested only in reducing hours and increasing their daily pay.

The welding of these three diverse and conflicting interests 2 into one union, thus assuring a unanimous strike, * affords a remarkable proof of the strong tendency toward organization, and the fixed purpose of labor to trust to the collective rather than to the personal bargain. No capital, however anxious to secure the largest output at the lowest cost, can wisely disregard this tendency.

½ The strike of September 1900 * was primarily for miners' wages, while the strike of 1902 was for laborers, engine men, pumpers and others, and also for the distinct recognition of the newly organized union.

The coal mined is coal and slate. The coal paid for is 3 coal alone. Amazing as it may seem * the net coal mined is a matter of guesswork. Although this guess is generally about right, it sometimes happens that the actual coal mined is more than the coal paid for. When the men asked for a net coal weighing they asked for something not easily ½ done, but wise and well worth * all it would cost.

The demand for an eight hour day for pumpers, engineers and others was intended to give this class of steady labor a reason for striking with the others. The union could have done nothing without calling out its allies at the
4 pumps; but when it did this, * it greatly embittered railroad managers and operators.

The strong feeling in this strike, in which the union sought for control, has been deepened by the fatal economic situation of the miner. Under competition the anthracite plant is one half larger in mines and one half greater in
½ labor * than the utmost public demand. Two thirds of the plant and two thirds of the men, worked regularly and with more exact system, could, notwithstanding lack of summer demand, produce coal at less cost and afford better wages than by the present methods. The coal industry
5 ought to be reorganized. *

University of the State of New York

High School Department

177TH EXAMINATION

STENOGRAPHY

Thursday, March 26, 1903—9.15 a. m. to 12.15 p. m., only

NOTE—Candidates may take one or both of these tests. The time for dictation and for transcription is indicated in each case. The shorthand notes and the transcript are to be collected by the examiner at the close of the period assigned for each transcript. Candidates are to specify the system followed in taking down the notes. Credits depend on the accuracy of the notes and of the transcription.

FIRST TEST

Papers entitled to 75% will be accepted. 500 words to be dictated in 10 minutes and to be transcribed in 75 minutes.

MINUTES

Schenectady N. Y. Jan. 21, 1903

Messrs Jenkins & Moshier
Philadelphia Pa.

Gentlemen: This will introduce to you Mr Harry Haw-
½ kins, expert electrician. * We have not the least hesitation
in commending him to your confidence as one who can do
1 to your entire satisfaction the work which you require. *

Yours very truly

J. H. Howard & Son

St Paul Minn. Feb. 24, 1903

Mr George R. Porter
Minneapolis Minn.

½ Dear sir: * Mr W. C. Harrison, now of Hudson, Wis.,
has applied for a responsible position in our store and refers
2 to you as his former employer * for information concerning
his qualifications.

We trust that you will be willing to tell us, in the strictest
½ confidence, whether this young man * is in all ways com-
petent and reliable, and we beg to assure you that we will
gladly reciprocate your kindness, should you at any time
3 afford us the opportunity. *

Very truly yours

Higgins & Parker

Hartford Conn. Mar. 12, 1903

Thomas E. Jackson

Boston Mass.

3/4 Dear sir: You will find inclosed * a New York draft for \$750, the amount due on invoice of goods dated March 7th.

4 We appreciate your promptness in filling the order * and should be pleased to receive quotations on Mocha and Java coffee, Oolong tea, breakfast cocoa and seedless raisins, for 1/2 an order * to be sent you on or about April 10th.

At any time when you can make us special offers on 5 large lots of goods in our line, * please advise and we will give you prompt answer.

Yours truly

Corning & Davis

To the average American the interest in his business 1/2 amounts to a passion. * It is a great game to him, a game that he plays with as much enthusiasm as he does golf or 6 billiards. *

It is this zest for business, this enthusiasm for the great game of commerce that carries him forward to success in 1/2 such a marvelous way. * To many men the game of business is far more interesting than any other and the playing 7 of it takes such a strong hold of them * that they can scarcely think of anything else.

Few business men can break away from their offices even 1/2 after they have made their fortunes * or reached the hoped for pinnacle of success. Then the order of things is reversed—instead of the man's playing the game, the game 8 plays the man. *

Although the intense application in modern business life accomplishes great things and this very concentration has 1/2 done much for American commercial supremacy, * the effect on the man in the long run is in direct proportion to the amount of sustained effort.

9 People are beginning to realize more and more * that sustained, concentrated, exacting work must be balanced by a certain amount of amusement that is interesting 1/2 enough to take the mind away from business * —that is, the game of play must offset the game of business or the 10 player loses his capacity for playing either. *

SECOND TEST

Papers entitled to 75% will be accepted. Candidates for state business credentials must obtain at least 90%. 500 words to be dictated in 5 minutes and to be transcribed in 75 minutes.

Although China has had for many years an extensive and varied commerce, both foreign and domestic, she has today less than a thousand miles of railway. Her extensive sea-coast and her many navigable rivers have been her chief support.

To a railroad man, the Chinese minister at Washington ½ recently gave some interesting information. *

He said that for many centuries freight had been taken in junks to the head of navigation and then carried over-land by coolies. There was for many years much talk of railways for China. Foreign capital had recognized the 1 opportunity and had tried hard to get building concessions * from the government. In 1876 official consent was given for the first line, which was to run out from Shanghai, a distance of about nine miles. Although the country was quite flat, the railway was forced to make many curves to ½ avoid graves, special tracts of land and other obstacles. * When it was finished it was bought by the government, which decided not to put the road in operation at that time, and the track was soon after torn up to prevent trouble.

Five years later a tramway, projected by the Chinese but 2 built by an English engineer, * was made to connect valuable coal mines with a small river, whence the product could be carried in junks to tide-water. This small tramway, operated by horses, was the real beginning of the Chinese railway system. The English engineer, not satis- ½ fied to use horses as the permanent power of the road, * built a locomotive with such materials as he had on hand and within a year the tramway became a real steam railroad which was operated with fair success. It grew mile by mile till it reached Tientsin, and in 1893 was pushed on 3 to the point * where the great wall of China runs into the sea. In 1900 it was extended 40 miles farther north, and finally to a point of connection with the Chinese Eastern Railway, the Chinese branch of the trans-Siberian railway.

There is, then, a system of railways owned by the govern- ½ ment * and built through English engineers and foreign

bankers, running from Pekin to its port at Tientsin, and thence in a northeasterly course through the great wall.

In addition to this a line was begun in 1896 to run from

- 4 Pekin to Hankau, a distance of about seven hundred miles, * and it is said that a division of 80 miles has been opened to traffic. It is evident that with an area of nearly a million and a half square miles and almost four hundred millions of people, China should have more railways.

- ½ Nor is it difficult * to choose the routes which would be of most value. China is readily divided into four main sections, of which four great cities form the centers. The Chinese government is granting many concessions to foreigners to build and operate railways, and such an investment seems likely to prove mutually profitable. *
- 5

University of the State of New York

High School Department

178TH EXAMINATION

STENOGRAPHY

Thursday, June 18, 1903—9.15 a. m. to 12.15 p. m., only

NOTE—Candidates may take one or both of these tests. The time for dictation and for transcription is indicated in each case. The shorthand notes and the transcript are to be collected by the examiner at the close of the period assigned for each transcript. Candidates are to specify the system followed in taking down the notes. Credits depend on the accuracy of the notes and of the transcription.

FIRST TEST

Papers entitled to 75% will be accepted. 500 words to be dictated in 10 minutes and to be transcribed in 75 minutes.

MINUTES

Syracuse N. Y. May 8, 1903

Harvey Bros.

Newark N. J.

Gentlemen: We have shipped today, as per invoice in-
½ closed, the salt ordered by you May 4. * As this is an un-
usually large order we will make you a discount of three
1 per cent instead of terms heretofore given. *

Awaiting your further favors, we remain

Yours very truly

Johnson & Field

Glenbrook Conn. June 3, 1903

Mr Howard Brown

½ 99 Broadway, New York *

Dear sir: We wish to form a corporation for the purpose
of establishing an electric light and power plant in this
2 village. * Will you kindly send us a man to estimate the
cost of such a plant, and to give us any other necessary
information?

½ Please telegraph * the day and hour of his coming.

Yours truly

T. R. Mason, chairman

Evanston Ill. Apr. 20, 1903

Mr Harrison Bradford

3 Chicago Ill. *

My dear Harry: Mrs Barnes is planning a house party for the week beginning May 11th and would like to count ½ you as one of her guests. * I know how fully your time is occupied, but am sure that you would make a special effort 4 to come if you knew the pleasures * in store for you. We have invited some charming people and feel confident that you will find them highly congenial.

Sincerely your friend

½ Oscar Barnes *

More than half of Europe is included in Russia. This country, though thinly inhabited, contains about as many 5 people as the whole of North America. *

Farming is the greatest source of wealth in Russia. With the farm products that she exports, Russia pays ½ for the manufactures that she buys. * The rich soil of the "black-earth land" produces nearly seven tenths of the great grain crop of the country and supports more than 6 half of the population. * No country, except the United States, exports so much grain as Russia. Poor as the farming is, Russia produces about two thirds of the oats * and ½ half of the rye of Europe, more barley than any other European country, more hemp and flax than any other 7 country in the world, * and a wheat crop that is surpassed only in our own land. Although the yield of rye is twice ½ as large as that of wheat, * yet a smaller quantity is exported because rye is the leading home breadstuff. Russia 8 was for a long time earnestly working to produce * all the sugar she consumed. This end has been accomplished and beet-sugar now supplies not only the home demand, but ½ also much of the sugar * required for all the Black Sea countries and Persia.

The government is striving to make Russia independent 9 of the manufactures of foreign lands. * It imposes a high tariff on foreign goods, and has a Department of Manufactures and Trade which has special charge of industrial ½ interests. * As a result, large manufacturing industries have been built up, and today Russia supplies many kinds of 10 goods in quantities sufficient to meet the home demand. *

SECOND TEST

Papers entitled to 75% will be accepted. Candidates for state business credentials must obtain at least 90%. 500 words to be dictated in 5 minutes and to be transcribed in 75 minutes.

Banks for lending and doing a general business in money are of very ancient date. In a museum of art in the city of New York may be seen tablets from ancient Babylon, showing distinctly the records of banking transactions ½ which took place in the times of the Bible kings. * Modern banking in Europe may be traced to the money dealers of Florence, who had a high standing as receivers and lenders of money in the 14th century. The name bank comes from the Italian word *banco*, meaning a bench—the Jews having 1 benches in the market place * for the exchange of money. When one of these bankers failed his bench was broken by the people, from which we have the word *bankrupt*, meaning broken bench. The goldsmiths were the early dealers in money, but there was no direct connection between the two ½ occupations, and banking soon became a business by itself. *

The Bank of England was the fourth important national bank founded in Europe, the Bank of Venice being the first. The Bank of England is more than 200 years old, and is conceded to be the greatest financial institution in 2 the world. It began with a capital * of 6,000,000 pounds sterling. The bank building covers an entire block, and the plan is a complex system of walls, offices and court-yards, the result of growth and necessity. About 50,000 notes of different values are paid into the bank every day. ½ These are stored in the cellars * of the building and burned after five years, new notes being always paid out for bills and checks. The first bank in America was the Bank of North America, founded in Philadelphia in 1782.

Banks are a positive need to the success of modern busi- 3 ness enterprise. * They provide a safe place for the keeping of money, and through the use of checks and drafts they make payments much more convenient and safe than they would be if currency only could be used. But the great advantage of the bank to the business man is the ½ opportunity it opens to him * of borrowing money and thereby obtaining the funds for carrying on his business, while his own capital is locked up in merchandise or in the

hands of his debtors. Another advantage is to be found in the facilities afforded by banks for the collection of
4 checks, notes and drafts. *

The banks of this country will not, as a rule, cash a check made payable to order unless the person who presents the check is known at the bank, or can get some one who is known to the teller to identify him. It should be
½ borne in mind, * however, that a check drawn to order and indorsed in blank by the payee is really payable to bearer, and if the teller is satisfied with the payee's signature he will probably cash the check. In England all checks that appear to be properly indorsed are paid without
5 identification. *

High School Department

175TH EXAMINATION

BOOKKEEPING

Wednesday, September 24, 1902 — 1.15 to 4.15 p. m., only

Answer questions 1-4 and six of the others but no more. If more than six of the others are answered only the first six answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-4 Make entries in cashbook and journal of the following transactions for posting by double entry [Cash items are to be entered in cashbook only, and when posted, to be posted to the ledger direct]:

Apr. 1, 1902. Clarence Wood and Howard McNaughton form a copartnership, under the firm name of Wood & McNaughton, for carrying on a retail coal business in Albany and have each paid in as capital \$7500 in cash.

Apr. 2. Paid cash for office furniture \$380.40. Bought of Brandon & Co. Scranton Pa. 400 tons egg @ \$5, 600 tons chestnut @ \$5.25. Terms, 2% off 5 days, net 30 days.

Apr. 3. Sold John Storm 12 tons egg @ \$6.50, 9 tons chestnut @ \$6.75 (delivered).

Apr. 4. Sent Brandon & Co. New York draft for amount of bill of Apr. 2, less discount. Sold J. H. Parker 20 tons chestnut @ \$6.50 (delivered).

Apr. 5. Paid cartage \$10.25. [Assume that a ledger account is kept with cartage.]

Apr. 7. Bought of Brandon & Co. 100 tons stove @ \$4.50 and 30 tons grate @ \$4.25.

Apr. 8. John Storm paid his bill of Apr. 3.

Apr. 9. Accepted Brandon & Co.'s draft at 10 days for \$175.

Apr. 10. Sold H. A. Van Buren 3 tons grate @ \$5.40, 12 tons egg @ \$6.50, 12 tons chestnut @ \$6.75 (delivered). Cash sales to date \$349.50.

Apr. 11. Received Van Buren's note at 90 days for \$115 to apply on account.

Apr. 12. J. H. Parker has failed and settled his account of Apr. 4 at 50¢ on the dollar. Paid cartage \$6.75.

5-6 Post all the items given in questions 1-4.

7-3 Make a balance sheet from the ledger required in questions 5-6, assuming that the inventory of merchandise is \$3750.75 and that of furniture and fixtures \$365. [Show the net gain or loss and the present worth of each partner.]

9 Write (a) the accepted draft mentioned in the transaction of Apr. 9, (b) the note mentioned in the transaction of Apr. 11.

10 Write the New York draft mentioned in the transaction of Apr. 4, supplying all necessary data.

11 Make out in proper form H. A. Van Buren's bill, showing amount due at the time of closing the books. [Transactions Apr. 10 and 11.]

12 State the fundamental principle of double entry book-keeping. Give a general rule for determining debits and credits. Under what circumstances would you advise the use of single entry?

13 Mention *four* ways of paying bills in distant places. Which is the best and most common method?

14 How often should a trial balance be taken? Mention *two* forms of trial balance and state at what point in closing a set of books each is generally used. When the first trial fails to balance, what *two* common errors may be the cause?

15 Define consignment, assignment, bill of lading, capital, trade discount.

High School Department

176TH EXAMINATION

BOOKKEEPING

Wednesday, January 28, 1903—1.15 to 4.15 p. m., only

Answer questions 1-4 and six of the others but no more. If more than six of the others are answered only the first six answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-4 Make entries in cashbook and journal of the following transactions for double entry bookkeeping [Cash items are to be entered in cashbook only]:

Oct. 1, 1902. Started a lumber business in Utica with an investment of cash \$1500 and merchandise \$8750.

Oct. 3. Bought of Wright & Mason, Detroit, on account 40 M yellow pine boards @ \$20, 50 M hemlock boards #1 rough @ \$12, 55 M spruce lumber #1 @ \$22. Terms $1\frac{1}{2}\%$ off 15 days, net 60 days. [M=1000.]

Oct. 4. Sold Alfred Houghton on account 18 M hemlock shingles @ \$2.25, 15 M cypress beveled siding @ \$22.25.

Oct. 6. Paid for stationery, stamps etc. \$5.25.

Oct. 7. Sold Phillips & Fisher on account 19 M spruce lumber #1 @ \$29, 12 M Georgia pine boards @ \$15. Cash sales to sundry persons \$457.84.

Oct. 9. Received Alfred Houghton's check on Commercial National Bank for \$350 to apply on account.

Oct. 10. Bought of Wright & Mason on account 100 M pine shingles @ \$3.10, 50 M spruce laths @ \$2.

Oct. 13. Sold Maurice Freeman on account 16 M white pine beveled siding @ \$27, 12 M white pine flooring #2 @ \$20.

Oct. 15. Cash sales \$315.60.

Oct. 16. Paid personal bills \$125.

Oct. 18. Sent Wright & Mason New York draft for their bill of Oct. 3, less discount.

Oct. 20. Received Phillips & Fisher's note at 30 days for \$500 to apply on account.

Oct. 21. Wright & Mason drew a draft on me at 10 days, in favor of Joseph Lawrence for \$250 which I have accepted. Cash sales \$378.50.

5-8 Using the methods of single entry bookkeeping, enter the transactions given in questions 1-4 and post to the ledger. After this, change to the double entry system and make from your ledger, as changed, a trial balance, assuming the merchandise inventory to be \$9270.

9 Mention the different classes of accounts used in double entry bookkeeping and state the use of each class. What class of accounts is used in single entry?

10 Write (a) the check mentioned in the transaction of Oct. 9, (b) the accepted draft mentioned in the transaction of Oct. 21.

11 As a commission merchant, make an account sales covering the following: Dec. 3, 1902. Received 500 barrels of apples from A. L. Anderson, Pommeville N. Y.; paid freight 20¢ a barrel, cartage \$13.50. Dec. 10. Sold 225 barrels @ \$1.75. Dec. 12. Sold 150 barrels @ \$2. Dec. 15. Sold the remainder @ \$1.90. Dec. 16. Paid insurance \$3.25, storage \$12.50. Commission 2%.

12 Make from questions 1-4 such entries in the sales book and invoice book as would properly appear in those books if used.

13 Enter on a page of your bank pass book the deposits of all cash and Phillips & Fisher's note of Oct. 20, which you will assume was discounted on the day it was received (questions 1-4).

14 Write the journal entry for the draft of Oct. 21 (questions 1-4) in the books of (a) the drawer, (b) the payee. [Mark the answers *a* and *b*.]

15 Enter in your bill book properly ruled and headed, the note mentioned in the transaction of Oct. 20 (questions 1-4).

University of the State of New York

High School Department

177TH EXAMINATION

BOOKKEEPING

Wednesday, March 25, 1903—1.15 to 4.15 p. m., only

Answer questions 1-4 and six of the others but no more. If more than six of the others are answered only the first six answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-4 Make entries in cashbook and journal of the following transactions for double entry bookkeeping [Cash items are to be entered in cashbook only]:

Jan. 2, 1903. Began a general provision business in Syracuse with cash \$2000 and merchandise \$5780.

Jan. 3. Bought for cash furniture and books for office use \$175.

Jan. 5. Bought of F. D. Mason on account 160 barrels flour @ \$3.85; 480 bushels potatoes @ 70¢; 225 pounds lard @ 9¢.

Jan. 6. Sold George Darrow on account 125 bushels potatoes @ 74¢.

Jan. 7. Paid F. D. Mason \$225 by check on 'Traders' Bank. Cash sales \$840.25.

Jan. 8. Sold James Parks 10 barrels flour @ \$4.20; 75 pounds lard @ 11¢.

Jan. 9. Bought of Alfred Lorrimer on account 525 pounds butter @ 20¢; 250 pounds lard @ 8¢.

Jan. 10. Sold James Ford, Baldwinsville, 150 bushels potatoes @ 75¢; 45 barrels flour @ \$4.25. Terms 2% off 5 days, net 30 days.

Jan. 12. George Darrow remits Henry Smith's note for \$75, payable to Darrow's order, at 30 days, in part payment of bill of Jan. 6.

Jan. 15. Received New York draft from James Ford in payment of his bill of Jan. 10, less discount.

Jan. 16. Bought for cash 5 tons coal @ \$7.25 for heating store. Cash sales \$483.92.

Jan. 17. Sent Alfred Lorrimer draft at 10 days on Peter Lawrence in payment of his bill of Jan. 9.

5-6 Post to the double entry ledger all items given in questions 1-4.

7-8 Make from the ledger called for in questions 5-6 a trial balance and statement of the condition of the business, assuming that the inventories are merchandise \$5250 and furniture and fixtures \$160.

9 Write the check mentioned in the transactions of Jan. 7, including the entries which should be made on the stub of the check book.

10 Write the note mentioned in the transaction of Jan. 12, properly indorsed. Show *two* other forms of indorsement which might be made on this note, by you, and explain the full effect of each of these indorsements.

11 Make out the account of purchase and sale for the following, showing principal's loss or gain and amount of broker's commission: a broker purchased for a customer 85,000 pounds of sugar @ $4\frac{1}{4}\%$ charging $\frac{1}{8}\%$ brokerage; he sold the sugar @ $4\frac{1}{4}\%$ charging $\frac{1}{8}\%$ brokerage.

12 Write to Arthur Williams, a letter of recommendation for John Holbrook of Schenectady, expert bookkeeper. Give special attention to English, punctuation and form.

13 Explain in detail a convenient method of filing letters in a wholesale business.

14-15 Make for single entry bookkeeping proper entries of all the transactions given in questions 1-4.

University of the State of New York

High School Department

178TH EXAMINATION

BOOKKEEPING

Wednesday, June 17, 1903—1.15 to 4.15 p. m., only

Answer questions 1-4 and six of the others but no more. If more than six of the others are answered only the first six answers will be considered. Division of groups is not allowed. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1-4 Make entries in cashbook and journal of the following transactions for double entry bookkeeping [Cash items are to be entered in cashbook only]:

May 1, 1903. Invested cash \$3000 and merchandise \$2500 in the grain and seed business in the city of Utica.

May 2. Bought for cash a fire-proof safe \$225, a roll-top desk \$35, and 3 chairs @ \$3.50 to be used in the office.

May 4. Bought of M. D. Rorer on account 50 bu. clover seed @ \$7.50; 50 bu. timothy seed @ \$7.85. Terms 2% off 10 days, net 60 days.

May 5. Sold Walter Johnson for cash 20 bu. clover seed @ \$7.70; 40 bu. oats @ 44¢.

May 7. Sold William Morgan on account 30 bu. choice marrow beans @ \$2.90; 100 bu. wheat @ 89¢; 100 bu. corn @ 61¢.

May 9. Bought of George Harding on account 200 bu. rye @ 59¢; 150 bu. corn @ 55¢.

May 11. Sold Howard Banks on account 50 bu. rye @ 67¢; 20 bu. timothy seed @ \$8.

May 13. Received Howard Banks's note, at 30 days, for \$100 to apply on account.

May 14. Sent M. D. Rorer New York draft for amount of bill of May 4, less discount.

May 15. Withdrew \$84.25 for personal use.

May 16. Cash sales to sundry persons \$113.15.

May 18. William Morgan remitted check on First National Bank in payment of bill of May 7.

May 19. Accepted George Harding's draft for \$77.50, at 10 days, in favor of Phillips & Rossman.

May 20. Paid for stamps and stationery to date \$18.56.

5-6 Post to the ledger all items given in questions 1-4.

7 Draw off a trial balance of the ledger called for in questions 5-6.

8 Make and close the "Loss and gain" account for the ledger called for in questions 5-6, the inventory of merchandise being \$2934.50 and of furniture and fixtures \$267. What is the proprietor's present worth?

9 Write a letter to M. D. Rorer, inclosing New York draft in payment of bill of May 4. Write also the draft for inclosure (Granite Bank on Commercial Bank, New York), supplying any necessary data. [See transactions of May 4 and 14.]

10 Make out the invoice of goods shipped to William Morgan, May 7. Write the check remitted by Morgan, May 18.

11 Write (a) the note mentioned in the transaction of May 13, (b) the draft mentioned in the transaction of May 19, showing acceptance.

12 Three men formed a partnership, A investing \$9500, B \$7600, C \$6000, gains and losses to be shared according to investment. At the end of a year their books show a net gain of \$9900; what is each man's share of the gain?

13 Give the names of *three* accounts whose balances show resources or liabilities. What account should never have a debit balance and what two accounts should never have credit balances? Explain.

14 When will the note mentioned in the transaction of May 13 be due? Assuming that this note had been discounted at a bank and was not paid when due, what action should be taken and why?

15 Give full directions for changing a set of books from single to double entry.

DRAWING

Thursday, September 25, 1902—1.15 to 4.15 p. m., only

Answer 10 questions but no more, including at least one from each of the three divisions. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Drawings may be in pencil, charcoal, pen and ink or water-colors. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted. At close of examination inclose work in double sheet, and place declaration and signature on last page of double sheet.

PICTORIAL

1 Draw freehand in light and shade a group of two objects.

2-3 Copy fig. 1, enlarging at least one fourth.

Or

Make a drawing similar in character to fig. 1.

4 Draw freehand a horizontal cylinder with its long axis extending from left to right and with one end turned away from the eye.

5 Make a sketch from memory.

DECORATIVE

FREE HAND AND INSTRUMENTAL

Tracing and transferring allowed in design

6 Draw an Egyptian ornament, writing its name underneath.

7 Conventionalize a plant form and use as an element in a design.

8 Draw an original decorative initial letter.

9-10 Make a simple design for the cover of a book on fishing.



FIG. 1

GEOMETRIC—INSTRUMENTAL

Show all working lines

11 Draw the developed surface of an equilateral triangular prism whose altitude is 4", and the side of whose base is 2".

12 Draw the plan and elevation of a vertical hollow cylinder.

13-14 Draw in front and below the eye the object represented by plan and elevation in fig. 2.

15 Construct a circumference passing through three given points.

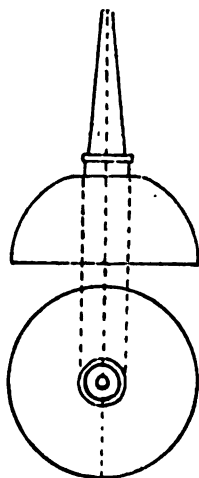


FIG. 2

University of the State of New York

High School Department

176TH EXAMINATION

DRAWING

Friday, January 30, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more, including at least one from each of the three divisions. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Objects may be in sight of candidates if desired. Drawings may be in pencil, charcoal, pen and ink or water-colors. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted. At close of examination inclose work in double sheet and place declaration and signature on last page of double sheet.

PICTORIAL

1 Draw a cube in perspective, and in the drawing indicate (a) horizon line, (b) center of vision, (c) vanishing lines, (d) distance points.

2 Draw free hand a group consisting of a cone, and any rectilinear type form. Finish the group in light and shade, or in accented lines to indicate light and shade.

3-4 Copy free hand fig. 1, enlarging at least one fourth.

Or

Use fig. 1 as a suggestion for a drawing similar in character and treatment.

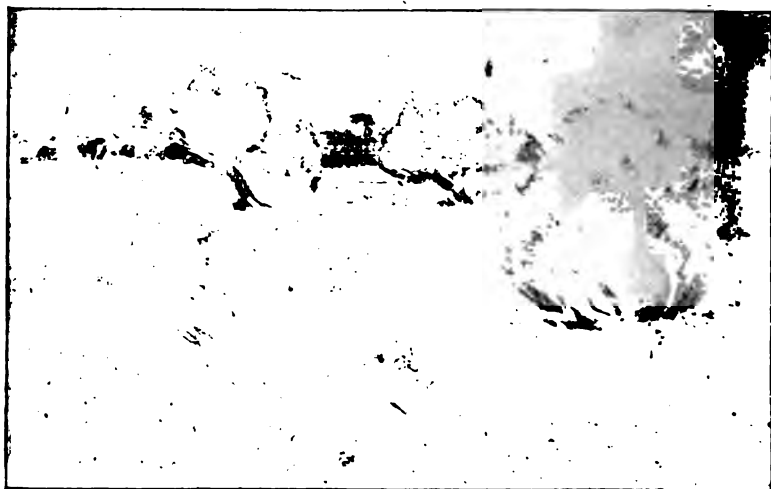


FIG. 1

5 Make a sketch of some object in sight.

Or

Sketch an object from memory.

DECORATIVE—FREE HAND AND INSTRUMENTAL

Tracing and transferring allowed in design

6-7 Draw a border in which there occurs a historic ornament or some modification of it. Write the name of the historic ornament used.

8 Arrange a spray of flowers in a circle, illustrating good space variation.

9-10 Fig. 2 is a surface design from an old textile in black and white. Copy the design, enlarging at least one fourth.

Or

Make a design similar to fig. 2.



FIG. 2

GEOMETRIC—INSTRUMENTAL

Show all working lines

- 11 Construct a regular octagon in a circle whose diameter is 4'.
- 12 Draw the plan and elevation of some object (not a type form) conical in shape.
- 13 Draw the developed surface of a plinth whose base is $1\frac{1}{4}'$ square and whose height is $\frac{3}{4}'$.
- 14 Draw the plan and elevation of a rectangular prism whose height is 4' and whose base is $1\frac{1}{4}'$ by 2'.
- 15 Draw a quatrefoil based on an oblong 5' by 3'.

University of the State of New York
High School Department

177TH EXAMINATION

DRAWING

Friday, March 27, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more, including at least one from each of the three divisions. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Objects may be in sight of candidates if desired. Drawings may be in pencil, charcoal, pen and ink or water-colors. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted. At close of examination inclose work in double sheet and place declaration and signature on last page of double sheet.

PICTORIAL

1 Draw free hand a group of *two* objects, representing them in light and shade or in accented lines.

2-3 Copy fig. 1, enlarging at least one fourth.

Or

Make a drawing similar in character to fig. 1.

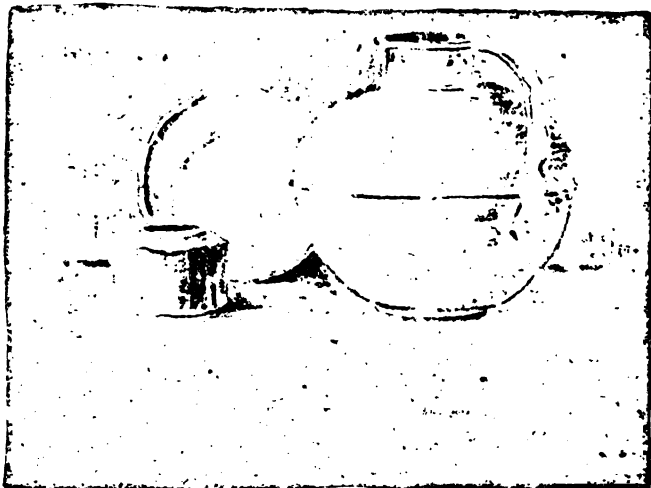


FIG. 1

4 Make a sketch of some one near you.

Or

Make, from memory, a sketch of some person.

5 Represent free hand, in front and above the eye, a rectangular type form or object.

DECORATIVE—FREE HAND AND INSTRUMENTAL

Tracing and transferring allowed in design

6 Make a pleasing design suitable to be repeated in the four corners of a square.

7-8 Modify the flower form in fig. 2 to fit an inclosing form differing in shape from the one in fig. 2.



FIG. 2

9 Mention *three* styles of medieval historic ornament.

10 Sketch a plant form and from it conventionalize *two* units.

GEOMETRIC—INSTRUMENTAL

Show all working lines

11 Draw the developed surface of a cone the diameter of whose base is 2" and whose slant height is $2\frac{1}{2}$ ".

12 Construct a triangle whose angles are 90° , 30° and 60° .

13 Draw the plan and elevation of *one* of the following: a spool, an ink bottle, a bell.

14 Construct (a) a regular octagon, (b) a regular pentagon.

15 Make a working drawing of a square pyramid the diameter of whose base is 2" and whose height is 4".

DRAWING

Friday, June 19, 1903—1.15 to 4.15 p. m., only

Answer 10 questions but no more, including at least one from each of the three divisions. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Objects may be in sight of candidates if desired. Drawings may be in pencil, charcoal, pen and ink or water-colors. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted. At close of examination inclose work in double sheet and place declaration and signature on last page of double sheet.

PICTORIAL

1 Sketch free hand a vase form or some similar object of pleasing proportion and curvature.

2 Make free hand a drawing which shall illustrate the following: position affects the apparent form of an object.

3-4 Copy fig. 1, enlarging at least one fourth.

Or

Make an original drawing similar in character to fig. 1.



FIG. 1

5 Draw free hand, in light and shade, or in accented line, a group of two type forms, one curvilinear, the other rectilinear.

DECORATIVE—FREE HAND AND INSTRUMENTAL

Tracing and transferring allowed in design

6 Within a free hand outline suitable to the growth selected, make a drawing of a plant form arranged in a pleasing manner.

7 Make a monogram of the letters R. J. E., modifying the forms of the letters to secure a pleasing effect.

8-9 Copy the arrangement of dogwood blossom in fig. 2, enlarging at least one half.

Or

Make a design similar in character to fig. 2.



FIG. 2

10 Make a design for a surface covering in which the unit of design is a historic ornament of the Greek style.

GEOMETRIC—INSTRUMENTAL

Show all working lines

11 Draw the developed surface of a cylinder 2' in diameter and 1' in height.

12 Draw the plan and elevation of the frustum of a cone.

13 Make a working drawing of a door knob or of some similar object.

14 Divide a line 5' long into three equal parts, and on one of these parts as a base construct a regular hexagon.

15 Inscribe a circle within an isosceles triangle.

ADVANCED DRAWING

Monday, January 26, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more, including at least one from each of the three divisions. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Objects may be in sight of candidates if desired. Drawings may be in pencil, charcoal, pen and ink or water-colors. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted. At close of examination inclose work in double sheet, and place declaration and signature on last page of double sheet.

PICTORIAL

1 Draw free hand a hollow cylinder resting horizontally, with right end turned slightly away from the eye. Draw the cylinder not less than 4" in length.

2-3 Copy free hand fig. 1, enlarging not less than one half.

Or

Make a drawing of a group similar in character and treatment to fig. 1.

4 Draw free hand in outline a group of three type forms so arranged as to show unity, variety and repose.

5 Draw from memory or from imagination a simple landscape.



FIG. 1

DECORATIVE—FREE HAND AND INSTRUMENTAL

Tracing and transferring allowed in design

6 Select a title for a book. Draw the cover of the book and arrange a suitable design for this cover. [The greatest dimension of the design should be not less than 4".]

7 Arrange a plant form (holly suggested) in a pleasing manner within a geometric figure.

8-9 Fig. 2 is a decorative treatment of a dandelion in a panel in black, white and gray. Copy fig. 2, enlarging at least one fourth.

Or

Make a design similar in character and treatment to fig. 2.



FIG. 2

10 Draw the Greek antefix, the greatest dimension to be not less than 4".

GEOMETRIC—INSTRUMENTAL

Show all working lines

11-12 Draw the plan, elevation and development of the convex surface of a truncated cone.

13-14 Draw the plan and elevation of a circular disc perpendicular to the horizontal plane and at an angle of 45° to the vertical plane.

15 Divide a line 5" long into six equal parts, leaving all the construction lines.

University of the State of New York

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178TH EXAMINATION

ADVANCED DRAWING

Monday, June 15, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more, including at least one from each of the three divisions. If more than 10 are answered only the first 10 answers will be considered. Division of groups is not allowed. Objects may be in sight of candidates if desired. Drawings may be in pencil, charcoal, pen and ink or water-colors. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted. At close of examination inclose work in double sheet, and place declaration and signature on last page of double sheet.

PICTORIAL

1-2 Draw free hand a group in which the following points shall receive attention: variety in position, pleasing outline, leading member and general unity as a whole.

3 Copy fig. 1, enlarging at least one fourth.

Or

Make a drawing similar in character to fig. 1.

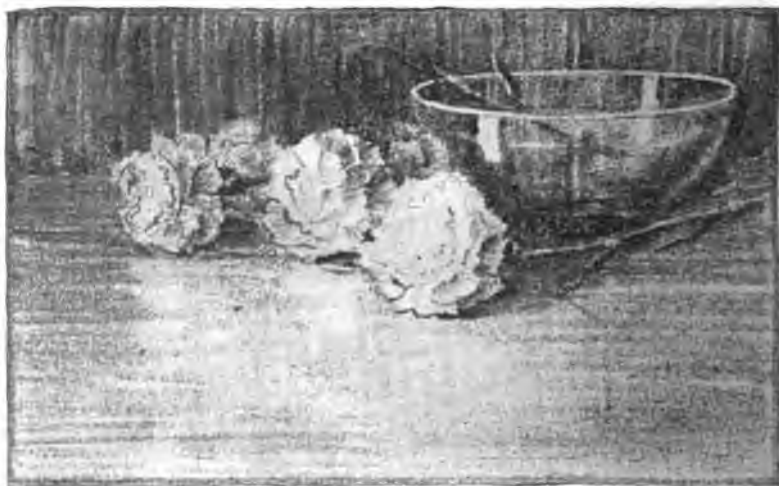


FIG. 1

4 Within an outline draw with a foreground, a group of trees so arranged that the trunks and larger branches shall make a pleasing space variation.

5 Select some quotation and illustrate it.

DECORATIVE—FREE HAND AND INSTRUMENTAL

Tracing and transferring allowed in design

6 Make a drawing of a natural flower form and conventionalize from it *three* different units of design.

7-8 Copy the bent iron work design in fig. 2, enlarging at least one half.

Or

Make a design similar in character to fig. 2.

9 Where and when were the greatest monuments of the Gothic style of architecture constructed?

10 Design a surface pattern involving opposition, transition and radiation of line, and the principles of repetition and alternation.

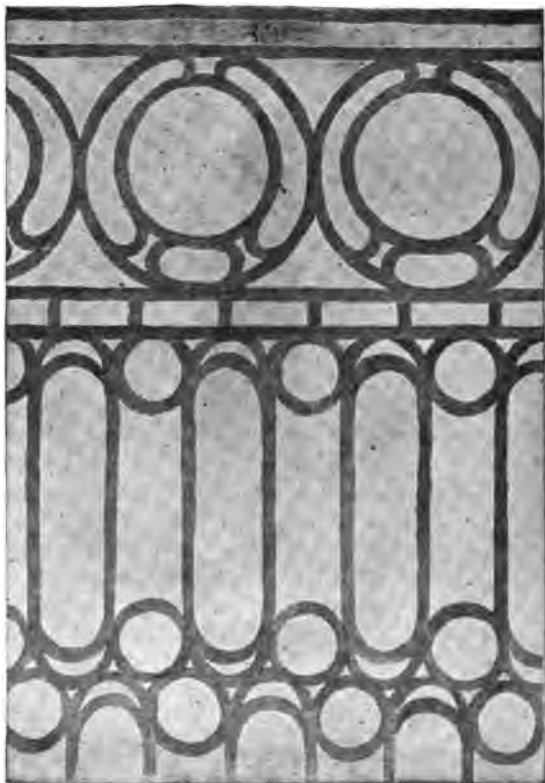


FIG. 2

GEOMETRIC—INSTRUMENTAL

Show all working lines

- 11 Construct an angle of 165° and bisect it.
- 12 Draw, with instruments, the perspective of a cube turned at an angle of 45° . Leave all lines used in the construction.
- 13-14 Draw plan, elevation and real shape of section of a square prism cut by a plane making an angle of 60° with one of the lateral faces of the square prism.
- 15 Draw the developed surface of an obliquely truncated cone.

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178TH EXAMINATION

WORD ANALYSIS

Tuesday, June 16, 1903—9.15 a. m. to 12.15 p. m., only

Answer 10 questions but no more. If more than 10 are answered only the first 10 answers will be considered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

1 Give an analysis of *each* of the following words: *resolve*, *antecedent*, *incredible*, *prescribe*. Write sentences in which these words are correctly used.

2 Write words containing *five* variant forms of the prefix *ad*. Show under what conditions each form would be preferred to *ad*.

3 Give *five* words from the stem *grad* and show by analysis the meaning of each.

4 Analyze *each* of the following words, giving the meaning of each part: *telephone*, *tally*, *suburbs*, *circumstance*, *retrospect*. Write sentences in which these words are correctly used.

5 Show by analysis how the words in *each* of the following pairs differ in meaning: *detain*, *retain*; *accept*, *except*; *elect*, *select*; *absolute*, *absolve*; *prefer*, *proffer*.

6 Give the meaning of each of *five* of the following prefixes: *anti*, *bi*, *contra*, *de*, *dia*, *pen*, *trans*.

7 Show by analysis the idea common to *each* of the following pairs of words: *diffusion*, *effusion*; *contract*, *retract*; *proposal*, *proposition*; *annoy*, *provoke*; *agent*, *actor*.

8 Write sentences in which the italicized words in question 7 are correctly used.

9 Give the meaning of *each* of the following stems and form a word from each stem: *rupt*, *brev*, *domin*, *cess*, *clud*.

10 Show how the suffixes in the following words affect the meaning or use: *wisdom*, *lawyer*, *fearless*, *lower*, *botanist*.

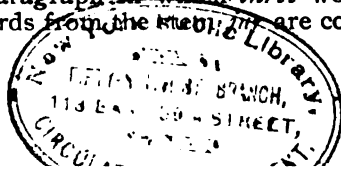
11 Give *five* words derived from the stem *duct*. Show that the differences in meaning in these derivatives are due to the prefixes or suffixes.

12 Give the meaning of the stem in *each* of the following words: *ablation*, *dental*, *confuse*, *comfort*, *parlor*, *pungent*, *pedal*, *appeal*, *pastor*, *linen*.

13 Show by analysis the meaning of *each* of the following: *meridian*, *inanimate*, *euphony*, *exorbitant*, *complacent*. Write sentences in which these words are correctly used.

14 Form *five* words, using the prefix *inter*. Write sentences in which the words formed are correctly used.

15 Write a paragraph in which *three* words from the stem *ject* and *two* words from the stem *hib* are correctly used.



University of the State of New York

High School Department

PUBLICATIONS

Gaps in the series indicate that the numbers omitted are replaced by later editions or are for other reasons out of print.

Examination Department reports 1894-97. O. 75c a vol.

Till 1894 these reports formed part of the general University reports, known as the Regents reports. They cover courses of study in secondary schools, examination of professional students, licensing examinations for physicians, dentists, veterinary surgeons and certified public accountants.

Continued in 1898 as reports of College and High School Departments.

Examination Department bulletins 1895-98. O. *Continued as College and High School Department bulletins.*

B4 (Examinations 1) Regents Examinations. 82p. Nov. 1890. 10c.

Historical sketch, laws, ordinances and rules pertaining to all examinations conducted by the Regents; details as to all University credentials; subjects, times and places of examinations 1891-95; notes on the reorganization of 1890.

B23 (Examinations 5) Report of Examination Department 1893. 82p. Feb. 1894. 10c.

X6 Report of Examination Department 1894. 126p. Mar. 1895. 15c.

X7 Medical Syllabus. 128p. Mar. 1895. 25c.

Outline of ground covered by state licensing examinations, prepared under direction of state boards of medical examiners for guidance of candidates.

Syllabus of Form Study and Drawing. 30p. 32pl. 25c.

Reprint of p.410-34d and plates from X8, *Academic Syllabus 1895*, replaced by X24.

X9 Report of Examination Department 1895. 108p. Feb. 1896. 15c.

X10 Examination Papers 1896. 502p. Oct. 1896. 50c; *small size uniform with previous volumes 25c, boards 50c.*

See also Question papers.

X11 Davis, W: M. (Harvard) State Map of New York as an Aid to the Study of Geography. 28p. Nov. 1896. 5c.

Based on the topographic map in preparation by the United States Geological Survey.

X12 Report of Examination Department 1896. 114p. Jan. 1897. 15c.

X13 College-entrance English. 148p. June 1897. 15c.

Present English entrance requirements of representative colleges and universities. Also discussions on aims and methods in teaching secondary school English.

X14 Examination Papers 1897. 578p. Aug. 1897. *Price, see X10.*

X15 Report of Examination Department 1897. 120p. Nov. 1897. 15c.

X16 Examination Papers 1898. 512p. Sep. 1898. *Price, see X10.*

The second edition contains only the academic papers, the professional papers being printed separately as College bulletin 3.

High School Department reports 1898-date. O. 75c a vol.

High School Department bulletins 1898-date. *To advance subscribers 50c a year.*

X17 (High school 1) Director's Report 1898. Mar. 1899. 122p. 15c.

X19 (High school 3) Associated Academic Principals. Proceedings of the 14th Annual Conference, Dec. 1898. 236p. Dec. 1899. 25c.

X20 (High school 4) Academic Examination Papers 1899. 306p. Oct. 1899. 25c. *Small size 12 5 x 20 cm, 25c; boards, 50c.*

University of the State of New York

- X21 (High school 5) Director's Report 1899. 70p. Feb. 1900. 10c.
X22 (High school 6) Associated Academic Principals. Proceedings of the 15th Annual Conference, Dec. 1899. 188p. Mar. 1900. 20c.
X23 (High school 7) State Science Teachers Association. Proceedings of the Fourth Annual Meeting, Dec. 1899. 302p. May 1900. 35c.
X24 (High school 8) Academic Syllabus. 226p. Ap. 1900. 25c; *cloth*, 50c.
The University declines to recommend any special textbooks, but for the guidance of teachers and students it specifies the ground covered by the preliminary and academic subjects. This syllabus is the best available outline of what should be accomplished in these subjects.
X25 (High school 9) Manual Training Syllabus. 60p. May 1900. 10c.
X26 (High school 10) Academic Examination Papers 1900. 306p. Aug. 1900. *Price*, see X20.
X27 (High school 11) Director's Report 1900. 38p. Feb. 1901. 5c.
X28 (High school 12) Associated Academic Principals. Proceedings of the 16th Annual Conference, Dec. 1900. 164p. Ap. 1901. 25c.
X29 (High school 13) State Science Teachers Association. Proceedings of the Fifth Annual Conference, Dec. 1900. 250p. May 1901. 35c.
X30 (High school 14) Academic Examination Papers 1901. 322p. Aug. 1901. 25c; *boards*, 50c.
X31 (High school 15) Director's Report 1901. 34p. Jan. 1902. 10c.
X32 (High school 16) Associated Academic Principals. Proceedings of the 17th Annual Conference, Dec. 1901. 196p. Mar. 1902. 25c.
X33 (High school 17) State Science Teachers Association. Proceedings of the Sixth Annual Conference, Dec. 1901. 312p. Oct. 1902. 40c.
X34 (High school 18) Academic Examination Papers 1902. 316p. July 1902. 25c; *boards*, 50c.
X35 (High school 19) Associated Academic Principals. Proceedings of the 18th Annual Conference, Dec. 1902. 136p. June 1903. 20c.
X36 (High school 20) Director's Report 1902. 38p. July 1903. 10c.
X37 (High school 21) State Science Teachers Association. Proceedings of the Seventh Annual Conference, Dec. 1902. *In preparation*.
X38 (High school 22) Academic Examination Papers 1903. 308p. July 1903. 25c.

Question papers. For the academic year 1892 (v. 1); 1893 (v. 2); 1894 (v. 3); 1895 (v. 4). D. 25c; *boards*, 50c.

For 1896-1902 see X10, X14, X16, X20, X26, X30, X34, X38. Till 1898 each volume contained all the Regents question papers of that year in any of the academic, professional law, medical, dental, veterinary, library and extension examinations. After the first edition of the 1898 examination papers the academic and professional papers were separated.

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